

DEPARTMENT/OFFICE

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File No.

Letter  
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1 Date of despatch

2. List of enclosures

## ABSTRACT.

This study attempts both to indicate the need for evaluation in the secondary modern school and to indicate a method by which the need could be satisfied.

Following a treatment of the problems facing modern schools, especially those matters concerning standards and examinations, a review is made of the literature about the concept of evaluation and various programmes and procedures in the fields are discussed. The plan of the present research is then stated, involving the setting up of objectives and the designing of measures, with accompanying standards, to test the degree of attainment of these goals.

Firstly the aims of modern schools are explored and as far as possible the objectives are stated in terms of assessable pupil behaviour. On the basis of this approach, 12 measuring instruments covering the basic subjects as well as the more intangible aspects of education, a diary and a questionnaire were devised or adapted from existing techniques. A pilot study using 70 pupils provided information about the reliability and to some extent the validity of the tests and measures.

Secondly a panel of teachers assessed minimum standards on the tests by establishing a level which they thought almost all modern school pupils should have reached on leaving at the age of 15.

The tests were then given to approximately 100 pupils in their last term in each of 4 different residential areas; suburban, industrial, rural and urban. Chapter VII provides a description of the leavers as obtained from the diary and questionnaire material, and Chapter VIII gives the results of the tests with comments on the sex and area analyses.

The resulting distributions are then compared with the teachers' standards and the percentage reaching the 'expected' levels calculated. In nearly all cases wide discrepancies were found between the standards and the level of actual performance. This is discussed in the light of information known about the tests, and facts gleaned from other surveys.

Finally, the implications of such evaluation procedures are commented upon and a brief summary of the findings precedes a statement of conclusions suggested by this enquiry into the aims of modern schools and the performance of modern school leavers.

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DEPARTMENT/OFFICE

Serial No.

File No.

Letter

Draft

Memorandum

Telegram

1. Date of despatch

No.

Dated

2. List of enclosures

## TABLE OF CONTENTS.

ACKNOWLEDGMENTS	...	Page.
PREFACE	...	

### CHAPTER.

I	Introduction - The Setting...	
II	Evolution: Review of Literature and Research...	
III	Research Plan	...
IV	Establishment of Aims & Objectives	
V	Construction of Measuring Instruments	
VI	Establishment of Standards..	
VII	Description of the Sample...	
VIII	Test Results	...
IX	Interpretation of the Findings	
X	Further Implications & Conclusions	



DEPARTMENT/OFFICE

Serial No.

File No.

Draft Letter  
Memorandum  
Telegram

No.

Dated

1. Date of despatch

2. List of enclosures

PREFACE

"... an officer found a considerably intoxicated man searching for his watch under a street lamp. After kindly helping for a while the officer had some doubts about the situation so he asked the man if he was sure he had lost a watch. Answered in the affirmative, the officer asked where, and was told by the searcher that the watch had been lost in the nearby alley. Asked why, with the watch lost in the dark alley, he was searching under the street lamp, he replied that the light was much better there."

(TILTON 1951, p.10.)<sup>1</sup>

That an outsider should attempt to evaluate aspects of progress in that uniquely "English educational institution - the secondary modern school - may seem presumptuous, not to say daring, if reactions to criticisms by a fellow-countryman <sup>2</sup> are any guide - and evaluation must imply criticism of a kind.

However the justification for this thesis is the same educational principle which it seeks to propagate, namely that evaluation is a necessary part of education because the results thus obtained are the bases required for effective improvement. This implies that testing, examining, and evaluating are essential aspects of development with their outcomes to be used as positive, constructive comment rather than negative, destructive criticism. It is unfortunate that the latter use prevails in many educational fields both in this country and elsewhere. When secondary modern school heads claim that their entrants come bearing merely negative information about themselves - failure in a certain examination set at a certain level<sup>3</sup> - they are emphasising concern over a problem affecting education at all levels.

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1. Story attributed to L.R. Franks and spotlighting the fallacy of testing only where it is easy and convenient to test.

2. Dr. J. Laird's provocative articles in The News Chronicle, 1955.

3. T.E.S., 16,3,56.

DEPARTMENT/OFFICE

Serial No.

File No.

Draft Letter  
Memorandum  
Telegram

1. Date of despatch

No.

Dated

2. List of enclosures

S. I (Large).

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The writer, H New Zealand, has seen the need for this approach in his own land where secondary schools are predominantly comprehensive, but there aims and school practices seem more in harmony. It was the apparent disparity between the aims seemingly expressed in the 1944 Act and the secondary provisions which evolved after it became law that prompted the present enquiry. A survey of schools and literature convinced him that, with some notable exceptions, the secondary moderns were open to just criticism, in that few knew where they were going and those that claimed they did had not always succeeded in transferring this sense of purpose to their pupils, the pupils' parents and, occasionally, individual staff members.

The resultant study, in reiterating that measurement is part of the learning process, seeks to point out the need for paying greater attention to the aims of education - secondary modern education in particular - and to the degree of success the schools achieve in attaining these aims. It attempts by means of an experimental evaluation programme to demonstrate both the need and a method of satisfying this need. In this twofold approach the research work partakes of sociology and philosophy but pretends to be neither sociological nor philosophical, it employs psychometric and even psychophysical methods but its primary cutback is educational rather than psychological.

The presentation follows the development of the research as it was undertaken. No attempt is made to explain in detail the development of the modern school concept by the Herwood Commission following recommendations by the Hadow and Spens Reports, nor the reasons behind the Butler Act's unwitting affirmation of the consequent tripartite system. It is clear that this division has firmly implanted itself in English education, for even experimental comprehensive schools, for the

DEPARTMENT/OFFICE

Draft <sup>Letter</sup> Memorandum  
Telegram

Serial No.

File No.

1. Date of despatch

No.

Dated

2. List of enclosures

S. 5 (Large).

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most part, envisage three such streams - sometimes in separate buildings. However, the concept that the general education of the majority of the country's future citizens is best provided by "curricula closely related to immediate interests and environment" presented in a "practical and concrete" manner is currently subject to some modification. In this modification, be it implemented within existing schools or alongside them, lies the hope for successful achievement of the very commendable aspirations of the 1944 Act. If this evaluation study contributes something towards this end, it will have achieved its objective.

DEPARTMENT/OFFICE

Serial No.

File No.

Draft   Letter  
         Memorandum  
         Telegram

1. Date of despatch

No.

Dated

2. List of enclosures

I.

INTRODUCTION - THE SETTING

"While no-one will deny the importance of the Grammar and Technical branches, the success or failure of secondary education will be decided in the Modern Schools where 75% of the enfranchised citizens of the future are receiving their preparation for life."

(HODGSON 1953)

When the 1944 Education Act decreed that children should be educated according to their ages, abilities, and aptitudes, it laid down no formal scheme as to the type of school organisation in which this was to be accomplished. It was left to the Crowder Report with its pseudo-psychological typing of individuals into groups according to ability to deal with material abstractly, experimentally or concretely, to set the stage for the so-called tripartite division of educational labours. This arrangement was, in fact, retention and extension of existing conditions in the education of the age groups involved, though the Act itself made dynamic progress in the direction of secondary education for all.

The establishment of secondary modern, grammar and, to a lesser extent, technical schools, by now well entrenched in principle, has met with some opposition in the increasing development of 'common' schools of one type or another. These constitute major policy in some areas, and are being tentatively experimented with in many counties and boroughs. While secondary education appears in a state of flux in many quarters, shortcomings being recognised by teachers and authorities alike, no-one can offer a singly and satisfactory solution. Tradition and the structure of English society seem to preclude any radical changes in the 'system' as a whole at present. Secondary modern schools have a long life yet, though their forms and functions may develop in varied directions subject to local conditions and external pressures.



DEPARTMENT/OFFICE

Draft      Letter  
            Memorandum  
            Telegram

5. 1.

File

1. Date of despatch

No.

Dated

2. List of enclosures

S. B (Large).

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Even now such changes are taking place. The answer to the query - what are the schools doing? - is greatly dependent on the breadth and depth of any inquiry made. With over 1,200,000 pupils, 48,000 teachers and modern schools three times as numerous as grammar, and twelve times as numerous as technical schools, faith in results covering only a limited number of schools will be sorely tried. However Dent (1953; 1954) has made an extensive private study of 12 L.S.A. areas and states that the trends he noticed are so similar to those reported in other areas that generalization is possible.

The two major trends were an increased attention to academic studies - in particular the 3 B, and a provision of vocationally-biased courses during the latter part of a four- to five-years course. There seemed to be four main types of schools developing:

- (a) those still 'senior elementary' in form and standard; found in areas where parents are apathetic and where there is grave depletion of ability through selection at 11 and 13.
- (b) those following the Ministry's outline in Pamphlet No. 9 "The New Secondary Schools"; giving a good all-round education, with some schools outstanding.
- (c) those with biased courses; frankly vocational.
- (d) those with advanced courses beyond the age of 15.

The number of schools with general and specialised programmes is on the increase. In most of these a broad course of academic English, history, geography (or social studies), mathematics, religion and science, with perhaps a foreign language, is given for two years. There follows recapitulatory and remedial work in the 3 B along with practical work in wood and metal, cookery and needlework, and an extension of music, art and physical education. The main

DEPARTMENT/OFFICE

Draft Letter  
Memorandum  
Telegram

Serial No.

File No.

1. Date of despatch

No.

Dated

2. List of enclosures

biases<sup>2</sup> are determined by locality. Many schools lose pupils at 13 to technical schools, while some with advanced courses even transfer pupils to the fifth or sixth form of a nearby grammar school on the completion of satisfactory requirements.

It would seem that these schools with a clearly-defined purpose are those succeeding best. While this observation may be influenced by the fact that with these the criteria of success are more readily expressed and more easily demonstrable, the underlying principle is being increasingly accepted as sound.

Some steps have thus been taken from the path set down in "The New Secondary Education" (H.M.S.C. 1947) by which schools should provide "a good all-round education not focussed primarily on the traditional subjects of the school, but developing out of the interests of the children". Of this it is easy to agree with the Economist leader writer when he says, "On this agreeable path, towards a destination obscured in a pleasant haze, the modern schools started out, and at first they had little idea where they were going." Eschewing this some schools have showed a marked change in outlook and now exhibit a purpose that was lacking in "the first admirable but nebulous notion about free personal development".<sup>3</sup>

The foregoing outline, brief as it is, is encouraging but concentrates on only one side of the penny. One can hardly do better than to quote the West Riding Report at some length. Commenting on the low prestige of the secondary modern in relation to the grammar and technical school the report says "Its name is meaningless compared with theirs, it

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2. These include engineering, agriculture, domestic science, and commercial, and, to a lesser extent building, printing, horticulture, market gardening, catering and nursing.

3. The Economist, 12.2.55.

DEPARTMENT/OFFICE

Serial No.

Draft Letter  
Memorandum  
Telegram

File No.

1. Date of despatch

No.

Dated

2. List of enclosures

S. S (Large).

MFP-1315 General-6747-(C-1385)-217-70144

is blamed because it lacks their vocational purpose, it takes the pupils they reject, it has to tackle a much wider range of ability than they do, it does not attract all the specialist teachers that it needs, it contains the backward children, and is not staffed to deal with them." With the approaching 'Bulge' the situation will become worse, "discipline and literacy will suffer", "teachers will be overwhelmed". The schools "are educating the majority of the electorate of the future" yet "their heads know that ability to read, write and calculate is not enough and they realise their pupils must, if possible, be armed against certain aspects of modern society which for many of them will consist of a job which yields no sense of achievement, entertainment which offers no creative satisfaction, and stimulants which in excess can demoralise." (HYMAN & JAMES 1953, pp. 19-20).

Dent amends his article about modern schools (1953) with the proviso that in spite of the many thoughtful approaches "there are other teachers, unfortunately - both heads and assistants - who are giving the problem<sup>4</sup> little or no thought at all. They are just plodding along, more or less consistently and competently, in much the same way as they were doing when they were still teaching in Senior Elementary Schools." This situation based as it is on a hangover from the senior schools should disappear given time, though Dent does not foresee this in the near future. In a later statement (1954), he emphasises that "It will be many years before we have even learned how to give all children a secondary education that is genuinely suited to their ages, abilities and aptitudes." In any event he feels it is too early to assess the effects of the 1944 Act.

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4. General education as the first objective of secondary modern schools.

## DEPARTMENT/OFFICE

Serial No.

114140.

Draft      Letter  
            Memorandum  
            Telegram

1. Date of despatch

No.

Dated

2. List of enclosures

Nevertheless the voices of inquiry will not be stilled. That "after ten years it is surely not too early to inquire whether these schools are turning out to be mere waste-paper baskets, or whether the advance of pre-conceived standards, forms and purposes is a challenge that is being triumphantly met",<sup>5</sup> sums up many of the views. Dr. Frances Gensitt speaking to the Association of Teachers in Colleges and Departments of Education finds herself asking, "Are the Schools clear and zealous as to their ultimate purposes, and are they able to devise schemes of general organisation and classroom techniques to subserve these aims? Are our children leaving school possessed of the interests and attitudes adequate to the good life?"<sup>6</sup>

When another educationalist (DEMPSTER 1954) writes on the modern school his article boils down to a further series of questions: Where are the secondary schools going? Do they know themselves? Have they the drive and purpose? If not, in what can they find this? Is it true that the aim of the secondary modern is not an effective stimulus to children and has little appeal to parents? Is the aim of Section 3 of the 1944 Act being achieved? Do teachers think what they are doing is adequate? Do the pupils? Do the parents? These are queries often expressed in the very staff rooms of these schools and it is perhaps this source that prompted the N.U.T. and Association of Education Committees to press for a full-dress inquiry into secondary schools.<sup>7</sup> When nothing eventuated local Branches began pressing for action.<sup>8</sup> Dent himself has lately relented for in a talk at

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4. General education as the first objective of secondary modern schools.

5. Ibid.

6. T.E.S. Reported 13.1.56

7. T.E.S. 29.10.54.

8. Evening News, 2.1.56



DEPARTMENT/OFFICE

Suppl.

Draft      Letter  
            Memorandum  
            Telegram

Other

1. Date of despatch

No.

Dated

2. List of enclosures

S. E (Large).

MFP--1315 General--4767--(C-1315)--4-1-57--700-200-1000

a conference of modern school heads (MOTHER 1955) he made a plan for a survey on a national scale to obtain and analyse information about secondary education all over the country.

It is apparent that in spite of the efforts of many schools to equip themselves with purpose there is still widespread dissatisfaction with secondary modern education. This is especially so with regard to the actual levels of performance of the leavers and to the method of presenting evidence of satisfactory accomplishment. Many and varied are the sources of criticism, and an examination of these will assist in clarifying the problems. Here, as indeed in preceding and following sections, quotations and references are indicative, but by no means exhaustive.

#### Criticisms of Performance Levels.

Industry has often complained in the past about the standards of employees coming from schools, but now it seems they are worse than ever. Evidence comes in the familiar form of shock-type headlines such as "Insolence of apprentices shocks the 1955 bosses"<sup>9</sup> with the underlying claims that boys and girls going into industry today are "insolent, unintelligent, undisciplined", or "School leavers lack the 3 Rs: Extra school year wasted say employers"<sup>10</sup> as a heading to several columns in which a manufacturing association directs concern at the secondary modern leavers, claiming that many of them were so deficient in quite simple arithmetic and English that there was little upon which to base the further technical education necessary.

Further criticism of a more sober nature comes from an Industrial Education Officer who states "we are increasingly concerned at the inability of the secondary school boy coming

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9. Daily Express, 7.5.55.

10. Enfield Gazette and Observer, 5.II.54.

DEPARTMENT/OFFICE

Serial No.  
File No.

Draft Letter  
Memorandum  
Telegram

- 1. Date of despatch
- 2. List of enclosures

No.

Dated

into industry to express himself well in speech and writing, to understand simple instructions, particularly when written, and to think reasonably/ logically about the day to day problems he encounters." <sup>11</sup> A Youth Employment Officer puts the situation thus, "Many engineering employers, I find, would prefer school leavers to be equipped with more mathematics and less benchwork; they want good scholars." <sup>12</sup>

Against these attacks must be placed the fact that employers in industry and business are ill informed about the differences in capacity of individuals, and the limitations on performance thus imposed (BUNT 1943); BALL 1954; <sup>13</sup> Also, most firms are today obliged to accept young people of a lower level of ability than those who were available in past years, due to virtual elimination of juveniles unemployment. In addition there is a tendency among employers to demand higher educational standards in terms of examination results for some of their workers which may reflect adversely on the standards expected of the other less-gifted employees. In short these complaints, while they must be noted, fail to substantiate themselves for lack of sufficient reliable evidence.

Other criticisms brought to the public notice via newspapers include "The Daily Mirror Spotlight on Education" (GAVE & JACOBSON 1954) which points to normal children still leaving school unable to read and write properly, teachers

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11. T.E.S., 6.1.56

12. T.E.S., 6.1.56

13. Of 41 apprentices "in the examination at the end of the first year of the National Certificate course, 10 passed and 1 failed out of 11 boys from Grammar Schools; 9 passed out of 9 from the Technical School; 1 passed out of 2 boys from the Central School; and the only boy from an 'unrecognised' school passed. But of 13 boys from secondary modern schools, 9 passed and 4 failed. Statistics like these mean nothing and these figures certainly give one cause to think." Leader: "Field Gazette and Observer, 8.11.54.

DEPARTMENT/OFFICE

Draft Letter  
Memorandum  
Telegram

Supp. No.

File No.

1. Date of despatch

No.

Parent

2. List of enclosures

2. 5 (Large).

MFP-1313 General-4767

frustrated by appalling conditions, employers dismayed at the secondary products and to the fact that in one city 80% of the bright children were retarded (though no information is given on which to base interpretation of such a figure). Then there is the more recent series by John Laird<sup>14</sup> beginning "Jungle in the Classroom" and highlighting some of the more unsavoury aspects of some secondary moderns. Perhaps the reply by London headteachers,<sup>15</sup> though directed at Laird, puts both these attempts to criticise standards in perspective at least for headmasters. "It is of course true that there is room for improvement in school conditions, and in some children's behaviour and attainments. It is true that owing to staffing difficulties it has been necessary in recent years to employ some untrained graduates. It is true also that there is a small minority of specially difficult children, and a very small minority of teachers who are not, especially at the beginning of their careers, so good at maintaining discipline as they might be. There is, however, no justification for the unhealthy sensationalism and the misleading statements and generalisations that are contained in the articles. We deplore their publication, and we record our unshaken confidence in the excellent work that London teachers are doing and our appreciation of their results already achieved in their efforts to build up a worthy system of secondary education for all."

However such understatement of the problem does not meet the factual findings of research workers. Wall in his study of boys and girls who had left school prior to the Act found that half were educationally retarded - one to three

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14. News Chronicle, Sept. 1955.

15. A reply to "Jungle in the Classroom". The London Head Teacher, No. 1955.

DEPARTMENT/OFFICE

Letter  
Draft Memorandum  
Telegram

Serial No.

File No.

1. Date of despatch

No.

Dated

2. List of enclosures

years in arithmetic. From a simple piece of concrete description over half were unable to gather a third of the relevant points (WALL 1944). Nor do things seem to have changed. Many of the arithmetical processes in which employers would like to see leavers efficient are accomplished in the junior school, yet surveys suggest that as early as the second year in modern schools (or their equivalent) pupils slip back to below primary standards reached at the 11 examination (BAKER 1955, WALES et al 1952), and the decline may continue steadily if arithmetic is not taught regularly (SUTHERLAND 1951). Similar findings have been reported in English (BAKER).

Then, there is the testimony of those engaged in the processes of education: the day continuation English tutor 'appalled' at standards yet maintaining that in spite of apparent evidence to the contrary, the standard of literacy is not falling! (DIGGLES 1955); the teacher turned youth leader who considers the leavers half-educated with the problem of being educated in one way or another after school to face (SIMPSON 1943); the teacher who pleads that "It would surely be more constructive in the present emergency for all teachers in secondary modern schools to concentrate on raising the general all-round standard of attainment."<sup>16</sup>; the Presidents' address to the Association of Education Officers in which in admitting lower standards he stated that, while teachers had done all they could in the circumstances, many children were retarded in fundamental skills at 15;<sup>17</sup> headmasters accepting statements about the inadequacy of the present teaching of the 3 Rs and listening attentively to a talk on standards that the secondary modern school could demand of its pupils;<sup>18</sup> and to complete an assorted list,

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16. T.E.S., 29.7.55. - Letter to the Editor.

17. G.H. Sylvester at Cambridge, 1956.

18. T.E.S., 17.6.55. Report on Northampton Conference of Secondary Modern Heads.



DEPARTMENT OFFICE

Letter

Draft Memorandum

Telegram

File No.

File No.

1. Date of despatch

No.

Date

2. List of enclosures

the incorporation in the front of an arithmetic syllabus for 4th-year boys, of information that a 1934 inquiry found backward groups in all years to the extent that tables were not known and there was a complete ignorance of the basic processes of the four rules.<sup>19</sup>

It is true that other references could indicate a rise in standards. Indeed Dent is reported as believing that there has been an undoubted rise in standards since the Andrew report and as saying "standards have gone up and up and there is no sign yet that the limit has been reached." (PACIFIC 1955) However even this approach qualifies the level at present achieved. It is enough for the purposes of this study to indicate widespread vocal concern about the levels of performance of secondary school leavers.

The new educational provision did not provide new children and the problem of standards is ever present in learning activities. Increased social and industrial demands on the leaver along with political activity in the educational field have combined to force the issue rather more before the public eye. Nor do the criticisms centre only on academic attainment, for the leaver is condemned because of his "indiscipline" and "don't care" attitude (almost any non-preparation of adolescents now being regarded as a deficiency of the school rather than of other educational agencies). It was partly the effort to combat many of these criticisms and to help raise standards that suggested the second problem - how best to demonstrate what the pupils had achieved.

#### Examinations reconsidered.

Many schools began thinking longingly about examinations; their effect on morale, on standards, on prestige.

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#### 19. Tower Bridge Secondary School.

DEPARTMENT/OFFICE

Serial No.

Letter

Draft Memorandum

Telegram

File No.

1. Date of despatch

No.

Sent

2. List of enclosures

Ons (1951) writes, "I found widespread among modern school teachers a longing for some recognised 'yardstick' by which they could measure the standard of their work. "We were delighted when we were told we should be free from examinations", one head said to me, "but now we are wondering what on earth to put in their place. " I was told that children had the same desire: "even when they are happy and making progress they still feel the need to know they are achieving some standard." In practical activities they could judge by the products they made, in academic studies they felt at a loss."

Education Officers are aware of the need for assessments but there is considerable doubt as to the form it should take. At present such trends as there are point to a formal examination, external or internal.

If the external examinations for which some modern school pupils are entered the one which should cause least argument is the G.C.S.E. "With the acknowledged limitations of selection and transfer a significant number <sup>20</sup> of modern school pupils are deemed capable of attempting this certificate. This opportunity provides a very necessary step towards parity of prestige with other forms of secondary education (BANKS 1955). Encouraging results have been reported (DIMPSTER 1955), with some evidence that the presence in school for an extra year of the more mature pupils has beneficial effects on the standards of work and behaviour of the other children and on the tone of the school; the purpose of the minority being reflected in those unable to reach the necessary requirements (BENFIELD 1955). Under the existing educational organisation there might well be a moral right for these

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20. Estimates vary from 5 - 8 to 20% with an average of about 10 % (BENFIELD 1955).

DEPARTMENT OFFICE

Letter  
Draft Memorandum  
Telegram

10712345

File No.

1. Date of despatch

No.

2. List of enclosures

children to attempt the G.C.E. with its implications of opening the door to higher education and certain types of vocation.<sup>21</sup>

Other external examinations such as Northern Counties Technical Certificate, Royal Society of Arts, Pitman's, etc. are at present a matter of controversy. Entry for these, though possible before the age of sixteen, tends to make pupils stay longer at school. In spite of this advantage the Minister of Education has attempted to discourage schools from working towards such examinations and refuses to grant fees for the purpose (N.M.S.C. 1955). Some schools circumvent this by giving the papers internally at 15 (CARSWELL 1956) feeling that even this "shadow" certificate will serve as a yardstick indicating achievement and promise for the parity of esteem which they are convinced is required.

In the same Circular (239) the Minister expresses disfavour of any general examination of national standing other than the G.C.E. He bases his views on the following detrimental repercussions: loss of teacher freedom, uniformity of curricula, syllabuses and methods, external pressure, use of results as any efficiency index for the school, "an examination aimed at the majority of pupils leaving at the age of fifteen would be of such a low standard that certification on a national basis would be of little real value." One may however agree with his disfavour without accepting all these views. Comment on some of them would not go amiss. The argument that teaching would be restricted and cramped is based on the assumption that uniformity of syllabuses, etc. in any form is undesirable and that freedom in teaching is more important than standards of attainment. This view finds little support in other levels of education. It is true that some children would be

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21. On the other hand one must note the many dangers of concentration on a limited number of subjects at the expense of the broader educational provisions that are available.

DEPARTMENT/OFFICE

100107

Draft Memorandum

Telegram

Serial No.

1. 6. 3. 0.

1. Date of despatch

No.

100107

2. List of enclosures

below the standard set and the percentage of passes would vary from school to school, but his situation is paralleled in the grammar school with the present G.C.E. And why, asks a teacher, should an examination of this type be less informative at 15 than at 11 when children's future is largely decided?<sup>22</sup> The objection to the low level of performance is surely not facing the issue squarely. Whether or not an examination is set will not affect the standard (except in the sense that incentive may improve it). The public should think no less of leavers who produce a certificate that tells honestly what they can do. The writer's objection to the National Certificate is that it would probably tend to show what they cannot do rather than what they can.

In spite of official opposition interest in an examination for fifteen-year-olds prepared by the College of Preceptors brought forth so many inquiries from modern schools that the Council suggested a trial period of five years should be allowed for entry of fifteen-year-olds for external examinations.<sup>23</sup> This was, as already indicated, not considered among the Minister's proposals. The other alternative for the schools was to establish their own certificates, singly or with a group of local institutions. Some authorities seem to be joined by others have set up their own examinations.<sup>24</sup> In other areas parents have shown themselves willing to pay to give their children a qualification meaning something to employers.<sup>25</sup>

Even the Norwood Report, which urged so strongly and successfully that modern schools should be free from examinations,

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22. T.E.S., 29.7.55 Letter to the Editor.

23. T.E.S., 1.7.55.

24. T.E.S., 3.2.56.

25. T.E.S., 25.11.55.



# DEPARTMENT OFFICE

Letter

Draft Memorandum

Telegram

1. Date of despatch

No.

2. List of enclosures

has been quoted against its own position,<sup>26</sup> using its remarks about the secondary schools in 1913. "At a time when the rapid expansion of secondary schools caused uncertainty about standards in the different subjects of the curriculum, when newly recruited teachers .... were in doubt about the aims and methods, syllabuses and curricula, the programme put before them in carefully devised regulations exerted a steadying influence, gave a sense of direction, defined levels of achievement and helped in no small measure to establish secondary education on a sure and sound basis."

It is surely true that, for the great majority of children, there is an urgent need for some form of goal to be aimed at. However, academic success in terms of G.C.E. results does not indicate the worth of a school - even a grammar school. This has very limited use as a criterion of the success with which a school achieves what it sets out to achieve for all its pupils. A good football team does not necessarily indicate a sound and successful physical education programme nor does the possession of a first class singer show how good is the music course. And these remarks apply equally well to successes in other types of external examinations. They have a definite and valuable place but achievement of good results in them will remain only part of the schools's success. Going further one may claim that mere academic performance in a school leaving certificate, even if a local one, is still a long way from providing evidence of the worth of the school and the progress of its pupils - though perhaps nearer the mark than most attempts. Examinations should be a means not an end. The G.C.E. and Commercial and Industrial Certificates are means to further education, formal or practical. Properly planned and used, examinations of some kind are essential for any thoroughgoing

DEPARTMENT OFFICE

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Draft Memorandum  
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11/12/1916

1. Date of despatch

No.

2. List of enclosures

education, but they must be seen in perspective. They will be worthwhile only in so far as they accurately reflect the objectives behind them.

What seems to have been neglected in all the discussion about examinations and standards in the secondary modern school is the determination of the aims of the schools. A teacher cries in the wilderness, "(the I.Q. is) but one of many factors involved in the child's development. What are these other factors? How are they fostered?"<sup>27</sup>

(We must go back to an article by J.P. Alexander (1953) to bring some order into the chaos, though his plan seems to have gone unheeded. He maintains that it is not enough to say we are educating children according to their abilities; we must be sure that the children's attainments are in accordance with their abilities. He sees examinations as educative and as a means of re-establishing standards which he feels are necessary to satisfy public opinion as well as to assist the schools themselves. It is a proud boast, he says, that the curriculum is determined by teachers themselves - but it is unreasonable for the young and inexperienced to determine not only the methods needed to fulfil the purposes of the school, but also the purposes themselves. There is a need to restate clearly the function which can reasonably be expected of the schools, to re-establish standards, having regard to the variation in children's abilities, and to state the proper contribution which unprejudicedly-designed examinations can make to the educational process. It is suggested that such a programme could be met by a committee composed of the Ministry, the L.E.A.s and teachers.

This is essentially an evaluation approach, a technique little utilised in this country but becoming of increasing significance in the United States. It seems to offer the best approach to the problems facing the secondary modern schools,

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DEPARTMENT OFFICE

Letter  
Draft Memorandum  
Telegram

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1. Date of despatch

No.

2. List of enclosures

no matter at what level applied - National, L.E.A., local or school.

Certain schools have strayed from their original aims in favour of objectives more easily assessed. It may well be that this change has been brought about, not because of a higher value placed on these new objectives, but because progress towards them could more readily be seen. Have they sold their soul for the gilt-edged certificate in ignorance of methods by which progress towards their original aims could be measured? If this is so, the present research may assist them to reorient themselves through evaluation. If however they know not only where they are going but why, the research may help in clearer definition of their objectives and a broader evaluation of their success.

DEPARTMENT OFFICE

Serial No

Letter  
Draft Memorandum  
in program

File No

1. Date of despatch

No.

Dated

2. List of enclosures

## II.

### EVALUATION: REVIEW OF LITERATURE AND RESEARCH

"For a number of years we who are the functionaries in secondary education have been telling the public that instruction should equip students with much more than information and skills, that learning should be functional, that education should adjust the student to life, and that it should modify his behaviour in many desirable directions .. The success of the school's program should not be left only to the unsupported subjective judgements of teachers and administrators."

(MANLEY 1952)

With the historically recent evolution of the ideal of education for all, first at the elementary, then at the secondary level, the need developed for reorientation of the functions of formal education. No longer could the dichotomy of liberal education on the one hand, and instruction for literacy and occupational efficiency on the other, stand up to the demands of society. There has grown up in place of this the concept of general education with its purpose "to enable men and women to live rich and satisfying lives and to undertake the responsibilities of citizenship in a free society." (McCONNELL et al 1950). "Although general education seeks to discover and nurture individual talent, it emphasises preparation for activities in which men engage as citizens, workers, and members of family and community groups." (ibid.) But for the more able, liberal education, involving rigorous training of the intellect, has resisted the spread of general education, with its emphasis on life adjustment, and a further division has developed. This is unfortunate because evidence is not lacking against the assumptions underlying this schism (CHAUNCEY 1955). The two approaches<sup>1</sup> are not necessarily incompatible.

In any event it is true that the tasks of schools have considerably increased in number. In so doing many of the more

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1. The success of the Public School in the 19th may well be attributed to general education at a high societal level.



DEPARTMENT OFFICE

Letter

Draft Memorandum

Telegram

Carriage

Postage

1. Date of despatch

No.

Page

2. List of enclosures

intangible developmental aims of education have passed from home and locality to become part of the function of the school.

The school has always been required to produce evidence of its success or otherwise. Indeed the public has a right to request this.

When the curriculum consisted solely of subjects or, as in the elementary school, the 3 Rs, questioning, marking, recording, and reporting occasioned little difficulty. The traditional forms of examining lent themselves to sorting, ranking, and grading with ranks, per cents, or letter designations. Though the measures had no common point of origin, though there was no agreed unit of measure, within limits the system was, to the users, satisfactory.

With the accent on individual differences and the growing realization of the applicability of the normal curve concept to traits and capacities, use was made of testing before and after courses. But as varying rates of growth are connected with different levels of ability, it was not clear to teachers, pupils, or parents whether the gain resulted from effort, growth, levels of achievement, or was a function of all three.

The traditional methods of assessment persisted in spite of the many inquiries into the reliability of the procedures, especially into marking; but more use was made of objective-tests following the widespread design and experimentation from 1910 to 1930. These were extended to fields previously untouched by traditional examinations. This movement was not without such criticisms of the basic logic of measurement. Many abhorred the whole idea of quantification, at the same time stressing the limited scope and restricted objectives of the measures. The movement, however, continued and broadened its basis on the assumptions that the more one knows about a person the more likely one can direct him or give him directions; and the more he knows himself the better he can make his own decisions (THORNDIKE & HAGEN 1935). While the aim is adequate description and prediction



of behaviour, success is dependent on the representative aspects chosen and the accuracy with which these are measured.

The current direction of measurement is therefore away from comparing the relative achievement of pupils or assessing growth according to ability (except in so far as these are necessary and desirable) and towards evaluation of total growth - physical, mental, and social aspects all seen as inter-related functions. Evaluation here means "understanding the factors affecting growth, diagnosing reasons for lack of growth, helping the pupil recognise and accept these reasons, and setting up appropriate next steps in terms of the child's natural pattern of growth." (RAMSDEYER 1955). This programme, in which self appraisal, group judgement and parents' evaluations are ranked equally with teachers' judgments, places emphasis on the improvement of the learning process rather than on appraising the end results as something of unique importance. It can be well conceived that mutual understanding has greater motivating force than mere comparison with others or measuring the magnitude of accumulated learnings: but school education has some way to go before this ideal is reached. It is not surprising that, while the approach has been successful in some elementary schools in the United States, the high schools have been slow to follow their lead.

Nevertheless there is evidence of marked improvement in teacher methods and testing and concomitant results in children's learning when some less-exhaustive scheme of evaluation is employed (PUGHAS 1954).

Wrightstone (1950) in his contribution to the Encyclopedia of Educational Research under the heading of Evaluation, states that this "is a relatively new technical term, introduced to designate a more comprehensive concept of measurement than is implied in conventional tests and examinations..... the emphasis in measurement is upon simple aspects of subject-matter achievement or specific skills and abilities, but ..... the emphasis in evaluation is upon broad personality changes and major objectives



of an educational program. These include not only subject-matter achievement but also attitudes, interests, ideals, ways of thinking, and personal and social adaptability."

The more formal procedures used widely at present for determining positions in class for reports and records by no means cover the whole of learning. They have value, but are limited by being too narrow and in revealing little of the growth towards many of the objectives the school lays claim to. Even less do they provide information leading to the improvement of teaching, unless diagnostic material is specifically included.

Implicit in evaluation is the attempt to measure a comprehensive range of the school's objectives. In doing so a variety of appraisal techniques are employed ranging from achievement tests, through rating scales, questionnaires and judgement scales of products, to interviews, controlled observations, sociometries and anecdotal records. By integrating and interpreting the various indices of behaviour changes, an assessment of the success of the school or an inclusive portrait of the individual can be constructed. Evaluation is continuous - an integral part of all learning and teaching; descriptive as well as quantitative. It is essentially a cooperative process involving pupils and staff, and if possible parents (QUILLEN & HANNA 1948). While the method may be used to evaluate results at the end of a course, an important function is the identifying of specific strengths and weaknesses of individuals and classes; thus motivating the teacher and pupils to collaborate on improvement.

As Irow (1963) says - we have committed ourselves to an educational programme aimed at the development of the individual to his fullest, hence the teacher must be able to evaluate the aspects of this development that the aims of the school touch upon.

The methods outlined by experts in the field agree very closely. The procedure is generally as follows: establish the aims underlying the teaching, clarify these as goals or objectives, formulate these objectives in terms of observable pupil behaviour,



develop and select measures to obtain evidence about the presence and incidence of this behaviour, record and examine the evidence, then state the implications of the findings. The interpretation depends on the standards required of the pupils. If this is not determined in the establishment of the specific objectives, a value judgement of some kind is required. It is a case of comparing what is with what is considered ought to be.

As in many situations direct evidence on attainment of the objectives is not available, the method resorts to experiments with indirect and short-cut measures (tests, scales, and questionnaires) to produce techniques giving indices correlating well with directly-observable behaviour. The techniques are then refined as to reliability and practicability as far as is possible and desirable.

Evaluation in its various forms can be used for many purposes. The most comprehensive list is that of Greene et al (1954) pp. 120-1. Several of his suggestions are given below:

A. For teachers.

1. Discovery and diagnosis of individual difficulties on basis for remedial programme.
2. Check of achievement of pupils or class against subject norms.
3. Check on progress or growth of a class in different aspects over a given period.
4. Check on whether stresses on aspects of subjects are proper in light of relative accomplishment of the pupils.
5. Check whether pupils working to capacity.
6. Effectiveness of a given approach in teaching method.

B. For heads and administrators.

1. Misplacement of pupils in schools or classes.
2. Classification on entrance.
3. Streaming or setting checks.
4. Efficiency of school as a whole, compared with similar





5. Check of over- or under-stressing of subjects.
6. Comparison of teaching methods.
7. Determination of general levels of school or schools.
8. Efficiency of progress checked against a post-year level as index base.
9. Check whether school, class or system is achieving what can fairly be expected.
10. Educational and vocational guidance in terms of current educational costs.
11. Answers to current local (business and industry) queries about the overall efficiency of the school system.

As objectives can be worded in terms of teaching or learning, evaluations can have different tools. Evaluation with respect to learning is most favoured by those who define education as a process of changing human behaviour - with a final goal of producing 'leavers' whose behaviour has been changed. It is felt that when the objectives are stated in terms of what is taught, there is a tendency for a teacher to say "Ah, yes - that objective! I taught division of fractions last week." This obviously does not mean that the pupils know how to do this, though the teacher often assumes that this is implied by the teaching situation. Even the most conscientious teachers can be misled in this way. Low standards and teachers' surprise when they are revealed in later examinations can often be attributed to such misdirected intention.

Now before looking at some of the researches that have involved evaluation in one form or another, it is well to record that as a system of measurement, this procedure must stand against the general criticism levelled at objective and subjective tests. These include the inculcation of ~~the~~ undemocratic practices and attitudes in the classroom when used as a basis for streaming and setting, the fixing of the curriculum and prevention of experiment and change - tests being seldom up to



the level of the best thought and practice, the limited scope and the encouragement of bad study habits and memorisation rather than understanding - due to the short-item techniques. While there is some truth in these criticisms as applied to current standardised tests, they are really directed at the incompleteness, the imperfection of results, or the unsatisfactory and ill-informed use of sound or unsound tests. Evaluation overcomes some of these objections by advocating and utilising a broader approach in terms of objectives and of techniques, with continual adaptation of tests and practices based on their results.

However many of the instruments in use need more adequate appraisal themselves. The validity and reliability of questionnaire scales and tests is often doubtful.

#### Research.

Just as intelligence and aptitude testing received a tremendous boost in the United States after World War I, the work done during the accrediting of World War II veterans for high school graduation-equivalence and for the College freshman year gave a fillip to evaluation procedures. The Tests of General Educational Development which were designed for these purposes included among them measures of interpretation of charts, graphs, and tables, and of reaching correct conclusions or "best" answers, besides other less common aspects of examinations. Significantly no time limits are imposed to allow full demonstration of what the examinees could do with a minimum of such pressures. (LINDQUIST 1951).

While tests of general education had been in use in elementary schools before this, the main source of inspiration and design for the above work was the Eight Year Study comparing college entrants from thirty experimental schools with matched students from conventional high schools. Starting in 1922,

300 Colleges and Universities agreed to waive entrance requirements



ments for the progressive school leavers for a period of five years. Success in college in the next few years was measured by the following criteria: intellectual competence; cultural development - use of leisure time; appreciative and creative aspects; practical competence - commonsense and judgement, primary manual skills, environmental adaptability; philosophy of life; character traits; emotional balance; social fitness; sensitivity to social problems; physical fitness. (MORRIS et al 1942).

Much thought and experimental work went into the design of the measuring instruments which in many cases were unique and set the pattern for further techniques. It must be noted in passing that while the results favoured the experimental schools, these schools nevertheless generally reverted to more orthodox methods when the study was completed. And, "in the area of evaluation, the thirty schools seem to have slipped badly." (RODGER, 1951). Though claiming that their objectives were clearer, most schools had done little towards creating new instruments and tests. Rodger's comments, which appears to provide a moral for secondary modern schools in England, runs as follows: "It is not enough to set schools 'free'.... because some schools and some teachers don't want freedom, while others that want it are confounded by it."

At the college level a number of other researches have been carried out with considerable success: the Carnegie Study of Pennsylvania Colleges 1938, the North Central Association study of Liberal Arts Education 1944, the Commission on Teacher Education Studies 1944, and the Cooperative Study in General Education 1947. "Certainly no college staff that has engaged in a comprehensive evaluation study is likely to be complacent about its present program of general education" (McCONNELL et al 1950).

A more recent development is the Cooperative Study of Evaluation (HAYDEN 1951) in which 34 colleges out of a



canvassed 40 agreed to collaborate. Committees were set up in different fields. Though some carried familiar titles such as 'Science' or 'Social Science', others were concerned with 'Attitudes, Values and Personal Adjustment' and 'Critical Thinking'. As with other such studies, the discussion stage brought increasing awareness of the interrelatedness of evaluation and classroom procedure. The committees did not believe that one should teach only that which can be easily evaluated, but they also found that much of what was actually taught was of less importance than other concepts which pupils should have grasped. When ideas for evaluation were suggested it often appeared that the pupils would be ill-prepared for them. If the ideas justified themselves this necessitated an over-hauling of courses. Critical thinking seemed important for all of the committees. This suggested that subject matter might be of less significance than certain general objectives such as this. Several of the committees have now designed tests for measurement in their fields - some of which have already been used, but in the main the enquiry has yet to be completed.

At the elementary and high school levels a number of test batteries containing fairly standard test procedures in subject areas have been developed. With one or two exceptions the batteries are simply standardised tests conveniently grouped together for survey purposes.

In the secondary schools, the Revised Evaluative Criteria 1950 is being used. In essence, this establishes the schools philosophy, then ascertains its success in attaining its objectives. Based on the 1940 Edition, which early altered its object of regional accrediting to school self-appraisal, the improved version has been called the best instrument ever devised for the self improvement of a secondary school.





though as with any such scheme its value depends on the attitude to its use (UMSTATD 1951).

The programme involves the employment of rating scales with precise definitions of all aspects of secondary education. Use is made of several committees (Library, Core program, Guidance, various subjects, etc.) made up of the school staff, with parents and pupils coopted where necessary. In addition there is a visiting committee of experts. Firstly a committee for Educational Needs is established to set out the philosophy on which the rest of the groups base their work. A tentative statement is framed after six to eight weeks of study, reading and discussion. Information about the school population and the community is then required before forming the other committees. These spend four to six months studying recent literature in their appropriate fields along lines suggested by a paid consultant (appointed from a nearby educational institution). The consultant, in addition to suggesting bibliographies, makes periodical checks giving general assistance during the five to seven year plan that follows. It is claimed that a number of "dead" schools have been revived by this method which provides vital stimulation to the work of the school.

The Educational Testing Service, with the support of the Russell Sage Foundation, is also engaged in a project of establishing secondary school objectives, along similar lines to the earlier work, "Elementary School Objectives" (KEARNEY 1953). It is hoped to make a statement of objectives for the purposes of evaluating educational outcomes as well as for curriculum planning. All the kinds of objectives that should be sought for all students in high schools are to be included (CHAUNCEY 1955). The plan is to use a committee of consultants - experts in research, curriculum development, adolescent psychology, and the psychology of learning - to outline the objectives. These will then be rounded out by



a group of laymen - representing the educationally-minded public - before being passed on to a committee of critics composed of successful teachers, supervisors and school administrators. An attempt will be made to reach conclusions by arriving at a series of "best judgments" representative of the views of educational experts in different areas. All this is in line with the first of the questions posed at the recent white House Conference on Education - "What should the schools accomplish?"

So far the researches described have involved the use of committees to establish the aims. Flanagan (1950) feels that a group of experts alone is not enough but needs supplementing with the systematic collection and analysis of factual data - the critical-requirements approach. To obtain the objectives he suggests a systematic definition of the problem in terms of a tabulation of adult activities in which the educational organisations are attempting to ensure successful participation. This list should be stated simply so that it is readily comprehended and agreed to by typical parents and citizens. Then sets of critical-requirements for these activities are to be set down, i.e. aptitudes, abilities, attitudes, etc. He instances as a sample list:

1. The adult should be a good producer of goods and services.
2. The adult should have an appreciation of the scope of knowledge possessed by our civilization and of its art forms.
3. The adult should be a good citizen.
4. The adult should be a good parent.
5. The adult should be a good friend and fellow being.

These would be matched against different occupations and the critical-requirements worked out in detail. Such work has in fact been carried out with such occupations as dentist,



scientist, factory worker, and book-keeper. Using interviews with questions framed on 'critical situations', modified for different groups, it is possible to discover what the groups think good and what bad behaviour in such aspects as are listed above. While realising this approach would only give norms and not positive values, Flanagan feels this is an adequate start - something on which to base values for each group.

It is interesting to note that the E.T.S. is attempting something similar in trying to develop value judgments in schools among children of different levels and from different environments. The pupils are asked to "tell about something a person did that made you like him better ... tell about something a person did that made you like him less."  
(CHAUNCEY 1955).

From the above reference the impression might be gained that evaluation, in its wider sense, is fairly widespread in the United States. This is not so. More has been tried at the college level because more scope is possible in test design. Problems of reading and understanding limit the evaluation of younger groups, if one wishes to include all children at the chosen levels; observational and interview techniques etc. may be appropriate if number are small. There have been some surveys in which evaluation procedures were used, that covered the ordinary leavers from high school - at a somewhat later age than that of their English counterparts.

The Regent's Inquiry in New York is typical of such studies (ECKERT & MARSHALL 1938). Based on the assumption that "the character of the students who leave the secondary school constitutes a valid measure of the quality of the school's contribution to effective living", its conclusions were an indictment of secondary education. Spaulding (1938) cites the leavers' reluctance to accept responsibility,

unrealistic plans, trashy reading, limited connection with



youth organisations, and poor discrimination in taste. He also records the sobering fact that while the abler pupils left with more information, their general social attitudes were not greatly different from the average.

All in all, however distasteful the findings, such surveys have great value in bringing facts to light and forcing interested persons to face them. In surveys like the one above the value would have been greater had the information been more specifically related to the aim of the schools.

In England, while the term evaluation - implying the concepts outlined before - has not been used, certain researches at various levels may be roughly classified under this heading. A significant feature is that the various evaluative aspects are not so well coordinated.

At present, as in other countries outside the United States (MURDOCH 1954), the research worker is faced with a dearth of sociological experimental material at the level of the secondary school. An increasing literature is being built up about the leaver who finds his way into various youth organisations and there is certainly information about older boys obtained during the period of National Service. Relatively little is known about the adolescent before he leaves school.

The recent plans of the National Foundation for Educational Research are encouraging. The national surveys being undertaken in English and arithmetic are to establish average performances at different ages, and for different levels of ability. The norms thus available will be of most valuable assistance in establishing standards of expected performance. Similar investigations of other aspects of education are mooted for future surveys. The response of all but one of the 146 L.E.A.s to the invitation to cooperate in the scheme indicates a felt need for some research of this





nature. It is planned to repeat the survey.

The use of the initial results as a base index should provide a means of examining the stability of school performance.

It may be that certain areas have already carried out such programmes at local levels. Manchester certainly has in an investigation into the standards of attainment in reading, writing and arithmetic at the ages of 7, 11, and 15 in primary and secondary modern schools. (MANCHESTER REPORT 1953). The findings in English are not reported as revealing serious deficiencies,<sup>2</sup> though it is admitted that the standards could be raised, particularly in vocabulary and spelling. It is suggested that, though considerable attention and emphasis is given to English, the level of teaching might be considerably improved. In arithmetic the work in mechanical processes was "reasonably satisfactory" but problem arithmetic, which is in effect the application to everyday situations,<sup>3</sup> was urgently in need of attention.

The report goes on to state that in the near future it is hoped that a panel of headmasters will look into the standards that might be expected at successive age levels. The authors realise that there may be danger in ill-advised comparison of results with these standards, (e.g. attempts to assess the educational value of a particular school without regard to other factors), but feel that the process would be a valuable if crude measuring rod. Over a period of time, it would undoubtedly assist the schools in assessing the achievements of their methods.

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2. Of the 15 year-old leavers, 80% could not yet write connected sentences.

3. of the 15 year-old leavers, 30% had not mastered the fundamental processes (40% when related in measures), 40% could not deal with long multiplication and division (60% in the case of measures), 30-40% were unable to handle fractions, and 25 % could not answer any of the written problems.



Of the few other researches reported, most have been at the single-school level, and limited in scope. It is known that in the 3 Rs and related subjects headmasters have made surveys of attainment within different classes. In one school (DUCKWORTH 1956) Schonell's tests were used to measure progress in English and arithmetic and were given regularly. A yardstick was created against which to compare the results, which were continually checked. A report for employers was based on this information. The programme stimulated children, parents and staff to examine the results and to try for better. In fact improvement was so marked that pupils graded D and E rapidly moved into group C and the numbers in A and B increased.

Some enquiries such as those based on follow-up of 11+ selection (EMMETT 1954) or comparison with other groups (PETERSON 1939), while giving some indication of success in secondary schools, are centred purely on academic achievement and are not concerned with the attainment of any absolute standards.

There are, however, two reports of surveys with a wider basis. Firstly, there is the attempt made to discover as much as possible about the attainments and possibilities of modern school entrants (GREENOUGH & CROFTS 1949). This was used as a basis for planning the future school programme. The procedure was repeated with a second group of entrants. The techniques employed included intelligence tests, standardised tests of English and arithmetic attainment, an interest questionnaire, Wing's musical tests, the Shoreditch Manual Skills Test, and the Peel Art test. Another interesting report by Croft (1951) describes how a teacher studied his class of backward boys, using intelligence tests, reading and arithmetic attainment tests, Sanders Security/Insecurity tests,



and sociometry.<sup>4</sup>

The foregoing examples seem representative of the approaches to evaluation in England at the national, area, school and class levels. It is readily seen that most of the methods are fairly orthodox in the aspects they investigate and the examining procedures they use. Other facts about adolescents have emerged as byproducts of investigation into television viewing, book reading and the like. At least one school in a suburb of London uses questionnaire techniques to check on hobbies, interests, visits to the centre of London and important places etc. on the assumption that this information will assist the school in its function of educating for leisure. Such approaches appear to be the exceptions.

It remains to mention an extension-evaluation programme at the infant school level (GARDNER 1949, 1950). This was similar in many ways to the Thirty Schools experiment in that a comparison was made of the later success of pupils from progressive schools with a control group. The research is interesting in its ingenuity in designing and adapting measures. Because of its level, and its concern with relative standards only, it must, however, be ranked with the preceding investigations as affording little assistance to the evaluation of secondary modern school leavers as attempted in this study.

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4. There have, of course, also been surveys of backwardness such as that reported by Child (1955) which provide useful evaluative material.



### III.

#### RESEARCH PLAN

"Curriculum research needs more tolerance for new techniques. The idea that there is only one style of research must be replaced with the idea that inquiry is on a continuum ranging from impressionistic, interested ideas to systematically controlled investigation."

(COREY 1952)

As has been seen, increasing concern for literary and 'competence in common calculations' in secondary modern schools has led to the advocacy of a leaving examination based on the 3 Rs and related subjects. This, Neal (1954) wisely points out, "might lead to the illusion that ability to pass tests in the basic skills is incontrovertible proof of education." Neal sees as the task of the secondary modern - as of any school - the finding out of what pupils are interested in, setting them to work in those directions and then setting them standards. However correct this approach may be, with some modification it outlines the plan of this research. The task is: to find out what the schools have as their aims, setting them to reach these aims by testing their pupils, and setting standards on the tests to estimate success in the direction of these aims.

The project developed from concern at reports, and some first hand experience, of the work in modern schools; concern which deepened as the pleas for examinations of an academic nature slowly but surely increased. The 1944 Act seemed less open to criticism than the system which evolved from it, yet in an endeavour to justify themselves in their own and the public's eyes the schools were moving further away from its undoubted advances.

It was felt that if some assessment of levels of performance matched against accepted standards was effected, the schools could see where they stood. With this went the





realisation that such levels and standards should be formulated in terms of the overall objectives of the schools. It was hoped, in addition, that should the evaluation approach be in any way successful, within the available limitations imposed in the present study, it might offer a mode of escape from the modern school's current dilemma.

Before outlining the draft of the procedure as planned, it is necessary to state certain facts which receive scant enough treatment when comments are made on secondary modern standards. Firstly, the provision of an additional four weeks' holiday a year under the 1944 Act, over a period of ten years compulsory education, means the loss of a school year. Hence the 'extra year' is not one of schooling but primarily one of age. Secondly, it was not until 1947 that leavers actually remained at school till 15 years of age. The four-year course dates from this time, not from 1944-5. Until the beginning of this research, the schools had had only eight such groups of leavers, and most of these had to some extent been affected by disruption of schooling during the war. Thirdly, only about one third of pupils are required to complete a full four years. In fact some may leave during vacation time after three years secondary education.<sup>1</sup>

Other points of importance include the observation that any evaluation of a school programme must depend in part on the adjustment of the leavers ~~after~~ they have left, the possible resistance of the pupils to testing, and the fact that some pupils will have marked difficulties with reading. It was realised that all these limitations could not be fully met, but it was hoped that realism of vocational choice would

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1. It is true, however, that more children are now remaining till the end of the school year, and some for an extra year.



measure to a small extent after-school adjustment, that the establishment under good rapport of a friendly cooperative spirit could overcome antagonistic or flippant attitudes, and that the freedom from time limits and the reading aloud of all written material would eliminate as far as was possible deficiencies in reading ability.

The research plan is presented below in itemised form. Each aspect is then commented on as briefly as the material permits. While the establishment of aims and measuring instruments naturally preceded the tryout of the tests, reference is made to the pilot study here for convenience.

1. Exploration of the aims of secondary modern schools.
2. Restatement of these aims in terms of objectives expressed in terms of pupil behaviour.
3. Construction and adaption of suitable instruments to measure the attainment of these objectives.
4. Tryout of the measures in a pilot study and reconstruction where necessary.
5. Determination of standards on the measures, as assessed by teachers.
6. Presentation of the battery to groups of approximately 100 leavers in their last terms in schools from four different environments.
7. Marking, recording, and analysis of results.
8. Comparison of the results with teachers' standards, and interpretation.
9. Outlining of the implications of the findings.

#### Comments:

1. Exploration of the aims of secondary modern schools.

The aims were obtained from the writings of philosophers, educationalists, and text-book authors, from reports and publications of the Ministry of Education and other associations and organisations, from curriculum suggestions, school



syllabus s, psychological articles, and from headmasters' and teachers' opinions.<sup>2</sup>

2. Restatement of these aims in terms of objectives expressed in terms of pupil behaviour.

The objectives to be included in the evaluation were selected on the basis of several limiting criteria but as wide a sweep as possible was made; including some of the more intangible as well as the more formal objectives. The step from ultimate aims to school objectives is, however, of utmost significance in evaluation and cannot be lightly passed over. In the words of Cureton (1951, p.653, "The problem is everybody's problem, but nobody's particular problem. Yet in the end it is one of the most important of all major educational problems." The formulation and definition of ultimate educational aims is the task for the educational philosopher. The curriculum expert attempts to set up programmes and procedures to meet the needs of immediate objectives. The psychologist designs ways of measuring the success of these. But none deals specifically with the deriving of the immediate objectives from the ultimate aims.

In the research we have tried not to reason backwards from subjects in their formal setting - a common enough approach - but to break down the general aims, and to coordinate the specific goals of courses, and then to synthesise these aspects into more or less unified groups of particularised objectives.

It must be noted that even if the schools achieve these objectives satisfactorily, this will not give automatic validity to their results as evidence of their success. This depends on the relevance of the examined objectives to the

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2. See Chap. IV.



ultimate aims. If they fail to attain their objectives it may not be an indictment of teaching as such nor even an admission that the objectives are beyond them, but simply that though they express these aims, many are not specifically taught for -- too much credence being given to the efficacy of 'transfer'.

3. Construction and adaptation of suitable instruments to measure the attainment of these objectives.

The recent comprehensive text on testing, "Educational Measurement" edited by Lindquist (1951), besides stressing the needs for evaluation, is a mine of information for the worker in this field. Both inspiration and practical assistance were gained from the authoritative articles on test construction and measurement theory, and from the references to the implications and functions of evaluation (TYLER 1951).

In such a programme much that is designed may be found inappropriate. Often little previous work in the fields is available for direction of effort. Initial development may have to be based on hunches until evidence mounts up (DRESSEL 1950).

For the more formal measures, curricular validity can govern the selection of test material. In practice, textbooks, syllabuses, school examinations and teachers' statements were used as a basis. Factors of extrinsic use or known errors and deficiencies were also employed. For the less tangible objectives, when measures were not already available or modifiable, the principle behind the construction was to formulate the items in such a way as to distinguish between those who had and those who had not attained the objectives.





## Reliability

In testing where the results are directed to individual guidance the standard error of measurement is the best indication of reliability. For the present purposes, concerning group scores, with time at a premium in construction and administration and the speed factor absent, the split-half method is the best measure. The correlation between the halves will vary with the method of splitting the test. Thorndike (1951) lists the four more usual procedures as: (a) selection by apparent equivalence in content and difficulty; (b) putting alternate items in each half; (c) putting alternative groups of items in each half; (d) comparing the first half with the second.

To ensure comparability of results method (b) - the odd-even procedure - was used in all but two cases. These latter were in a form that necessitated method (d). The split-half odd-even coefficient is a rough measure, but satisfactory in the circumstances. In each case the coefficients were corrected for length using the Spearman-Brown formula:

$$r_{12} = \frac{2r_{12}}{1 + r_{12}}$$

Having obtained the reliabilities the question of significance arises especially with "borderline" results. Symonds (1939) suggests that with 30 minutes testing time and 50 items one should expect a correlation of .80. Other things being equal, one gets in reliability what one is willing to spend in testing time, hence where the number of items was small and the time correspondingly short an arbitrary minimum of .60 was decided as being a satisfactory coefficient. The more formal and the longer tests were expected to give coefficients in the region of .80. That the .60 level is



justifiable is suggested by the repeated quoting of a minimum of .50 for evaluation of group accomplishments initially put forward by Kelley (1927).

The reliability of each test follows the description of its construction, (see Chap. V). Approximately 70 cases were used in each calculation; the sample being described briefly below. With some tests, further cases from the final survey were included to examine the stability of the coefficients where the groups appeared to differ. With others, alterations in scoring techniques were made in an endeavour - largely successful - to raise the reliabilities of the measures.

### Validity

While reliability is a general aspect of a test, validity is specific to the use that is made of the test. Hence while curricular validity may be claimed for the material incorporated in the various measures this does not necessarily imply that the tests will do what is expected of them. The items must be appropriate to the modern school leaver and framed in a manner that can be readily comprehended. It is suggested (GREENE et al 1954) that the teacher is perhaps the person best qualified to judge the attainment of the desired outcomes of his pupils. Therefore, in addition to content and construct validity, each item of each test was checked by staff members of the pilot school.

Checks on statistical validity were not made; for some tests it was thought unnecessary, for others virtually impossible - since the impossibility of direct observation left only the use of vague ratings, themselves of doubtful validity.

An additional safeguard against questionable validity was established by means of the teachers' assessments of minimum standards on the tests. These made the results more valid not in themselves but when matched against the standards. By this is meant that the teachers in evaluating each test,



disregard any items that they thought inappropriate. In this way a lower score could possibly be represented as the minimum expected for any one test than that which would apply to the items treated in vacuo. This would result in a fairer (i.e. more valid) estimate of the numbers reaching the aimed level. Even if some misguided use was made of this discretion the final percentages of 'satisfactory' leavers would at least err in the pupils' (and schools') favour.

4. Trycut of the measures in a pilot study and reconnection where necessary.

An average<sup>3</sup> mixed modern school was used as a basis for the trycut of tests. The school is situated in a middle class suburban area of Middlesex. Approximately 70 pupils in their last or second last term at school were given the battery of tests plus the questionnaire and diary. The testing occupied about eight school hours and was spread over a week, with the diary being completed during the following weekend. Although over 20 measuring instruments of various types were involved, the interest and enthusiasm of the pupils was apparent immediately they allowed themselves to be drawn into the spirit of the enquiry. The explanation that the tests were really anonymous although they put their names at the top because only the writer would see the results, was accepted. That these were judged by them as adequate assessments of the particular pupils' capabilities as far as they could ascertain was accepted as evidence that the childrens' answers and replies were essentially honest.

The work was certainly different from school lessons but even with the English and arithmetic tests, the desire to do well and know how well they were doing was openly displayed. This was regarded as a hopeful sign.

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3. Justification for the 'average' rating is based on comparison with other schools visited by the writer, and on comments of the staff at the Institute of Education.

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No statistical item analysis was made of the tests but distributions on multiple-choice items were checked. The tests appeared satisfactory in form and presentation. Apart from some minor alterations, where items in one test proved ambiguous, there seemed every justification for retaining the original tests. Low reliabilities for two tests indicated some restructuring; one being modified in form, the other shortened by omitting the more unreliable sections. These changes are described more fully under test construction (see Chap. V).

5. Determination of standards on the measures, as assessed by teachers.

To assess the standards on the tests that the majority of leavers might be expected to reach, approximately 50 teachers and headmasters evaluated the measures. Eight or more individual assessments were obtained for each measure, the median being taken as the best indication of the standard required. This technique depended on the coherence of the judgments for its justifications and was vindicated by the results (see Chap. VI).

6. Presentation of the battery to groups of approximately 100 leavers in their last terms in schools from four different environments.

Four types of residential areas were examined in an endeavour to obtain a broader survey within the limits of small numbers and to demonstrate differences in emphasis that might be expected if future evaluation was confined to any one of such areas. These four were defined as Suburban (S): including three Middlesex mixed schools, one in Hendon and two in Enfield; Industrial (I): three mixed schools in Walthamstow, Essex; Rural (R): two mixed schools in small villages near Taunton, Somerset; Urban (U): two mixed schools and one boys' school in the L.C.C. near Hammersley.



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West End Lane and King's Cross.

The main criterion in the choice of schools was that they should be thought of as "average modern schools" as interpreted by the area directors and Institute Staff members. The Middlesex and Essex schools were contacted through the area organisations, while the cooperation of the L.C.C. and Somerset schools was enlisted personally following Institute recommendations.

The areas were selected in the hope that they would conform to the following sociological patterns. The suburban was to represent a fairly stable middle class group living in good, spacious conditions in a pleasant environment. The industrial was thought of as economically similar to the suburban group but composed of upper working class families striving for middle class values, though living in rather less adequate houses and surroundings. Stability was also thought to be an aspect of the rural community, though the usual town-country differences would operate to distinguish this group from the suburban. In addition, economic variation would be greater. In the urban area it was expected to find the poorest financial circumstances together with cramped and unsatisfactory living conditions. A reaction against schooling was anticipated in this group, though lacking direction and purpose in being a reaction against the middle class ethos of the school without an adequate substitute in mind.

On these bases, differences between the areas were expected and indeed hoped for on various test and questionnaire items.

As little alternation was made in the measures after their tryout it was decided to include the pilot sample in the main enquiry (save with respect to modified tests) as the

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pupils satisfied all the conditions required.<sup>4</sup>

7. Marking, recording, and analysis of results.

Objective marking schemes were used for all the tests, save that with the letter, one sixth of the total was made up by a subjective rating. The questionnaire and diary permitted tabular analysis of various kinds and the calculation of percentages.

While school means for each test were worked out in order to satisfy the expressed desires of the schools for this information, the main analysis was confined to area and sex differences. Comparisons of streams within the schools was not possible because in the final year classification tends to be based on interests rather than aptitudes, and procedure in the preceding year varied from school to school. It may be possible at a later date to effect a breakdown in terms of ability, estimates of which are included in the evaluation.

The statistical treatment proposed for estimating the significance of the area differences was analysis of variance (GAMMETT 1947). Where necessary this was followed up by its particularised form, the t-test. This latter approach was also used for studying sex differences.

Analysis of the area differences on the questionnaire items involved percentages of yes's and no's. The chi-squared technique appeared the most satisfactory approach to determine the significance of the differences but the normal method of 2-by-4 analysis led to a great deal of calculation; especially as a considerable number of items were concerned. After some experimentation in attempting to derive a modified chi-squared approach, a formula was empirically determined from an example quoted by Lindquist (1940, pp.44-6). Sub-

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4. It must be noted that half of this group had an extra term at school before they left.



sequently Formula (89) of McNemar (1955):

$$\chi^2 = \frac{N^2}{A + B} \left( \frac{N^2_{A1}}{A1 + B1} - \frac{B^2_{A1}}{At + Bt} \right)$$

Bt = sample total of yeses.

B1 = total of yeses in any area.

At + Bt = N (sample total)

A1 + B1 = N1 (area total)

was found to permit a translation into precisely the same formula namely:

$$\chi^2 = \frac{\frac{N}{x} \left( \frac{x^2}{N} \right) - x}{1 - \frac{x}{N}}$$

x = total of yeses in any area.

N = total sample (n).

The significance of the difference between any two percentages on an item for which the null hypothesis had been disproved was then examined by the t - test technique:

$$t = \frac{D}{SD_{D\%}} \quad D = \text{Actual percentage difference.} \quad SD_{D\%} = \frac{PQ \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}{1}$$

Sex differences were interpreted in the same manner.

Comments were made on all the findings and attempts to explain the patterns of significant variations. (See Chaps. VII and VIII).

### 8. Comparison of the results with teachers' standards and interpretation.

The percentages of pupils reaching the teachers' standards on the tests were determined. Where analysis had shown significant differences between area or sex means, the percentages for each separate group were calculated. The results were then interpreted in the light of the reliability and significance of the tests, the standards, and the percentages reaching the level. (See Chapl IX).

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9. Outlining of the implications of the findings.

On the basis of the above, conclusions were drawn about the survey and its techniques. The implications of the evaluation for secondary modern school education were suggested, and directions for future research pointed out. (See Chap. X).



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#### IV.

##### ESTABLISHMENT OF AIMS AND OBJECTIVES

"The schools' objectives alter, at least slightly, as we discover more about how children learn and grow up to be happy. The objectives alter as a modern society makes additional demands on the child who grows into it and must contend with modern high-speed warfare, atomic energy and with the increasing closeness of foreign lands and peoples. The objectives change as social institutions, like the home, place in the hands of the school responsibilities they themselves formerly carried out, such as vocational training and guidance or help for emotional disturbances of children."

(THOMAS 1954).

Goals in education may be derived from many differing sources ranging from experimental data, through the opinions of adults and children, to statements by philosophers. They are hard to distinguish from values. Indeed the tasks of educators to decide what is worth teaching (learning), how it can best be taught (learnt), and how best to find out the success of teaching (learning), all depend basically upon what the educators believe in.

This does not mean that it is necessary to be able to propound the purpose of education in a single succinct proposition such as preparation of pupils "for life" (DEMPSTER 1946), or for "more abundant life" (WHEELER 1945), or even helping the child "to live" (STIMSON 1948). Nor does it mean a neat reference to the ideal as "a full democracy" (DENT 1946) or "happiness and a better start in life" (Government White Paper on 1944 Act). It is such as these that Niblett (1954) and Eliot (1951) had in mind when taking society to task for emphasising the unsatisfactory aims of 'happiness' and 'getting on' which they state are all too readily discernable in education.



Such philosophic considerations go beyond our requirements because all that is necessary for the present evaluation is a statement of the aims that are, and not those that should be. It is also a fact that only when the aims are broken down into smaller units can one determine whether the basic objectives are similar. The implied similarity of simplified generalities cannot be taken at face value. However with reference to the society within which evaluation is proposed, it does seem that most of the aims and ideals are but specific emphases or aspects of a broad common denominator set by that society. It is not necessary that the broad basis be expressed in a convenient short form. More often than not this leads to over-simplification in cryptic phraseology or flat jargon. In any event with respect to school aims, it is the teacher who decides what is of most worth in his control of presentation, emphasis and even content, though naturally he is influenced by outside factors.

There is a sense in which the aim of secondary education is the same no matter what school organisation is involved; but we must confine ourselves to the aims of the secondary modern schools which in the present educational arrangement place accent on objectives other than those with which the grammar and technical schools primarily concern themselves.

The 1944 Act affords little clarification of our problem with its general directive that pupils are to receive "such ... instruction and training as may be desirable in view of their ... age, abilities and aptitudes", since this is doing little more than stating what it aimed to provide. Nevertheless, the interpretation of this phrase in terms of three types of schools or streams on the basis of three types of pupil<sup>1</sup> did affect school objectives.

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1. Following the academic, technical, and practical divisions envisaged by the Hadow Commission.



After reading "Our Changing Schools" (ARMFELT 1950) one cannot entirely agree with the author's statement elsewhere (ARMFELT 1949, p.14) that "The Act did not cause the changes, the changes caused the Act." In the latter book Armfelt puts the following words into the mouths of two modern school headmasters, one in a rural area, the other in an urban. The country headmaster outlines the position to his staff who in their turn agree, "One thing's clear. If the children had been in need of the grammar school they'd have been sent to one. They haven't that means that it's not grammar school education they want'." Then, after discussion has emphasised differences, he concludes, "Where does the grammar school education begin? - where did it begin? It began, didn't it, in the schoolroom? Well, we'll begin outside'." (pp.51-2). The town head is pictured as saying, "What is it that does primarily interest our children....? Not books; otherwise they would be in the grammar school'." (p.72). It can be assumed that these indicate general lines of argument used in stabilising the initial modern school courses, because the schools are meant to be representative of their types. While, in part, the conclusions may have been valid, the danger lies in the faulty logic that gives rise to them.

In the Ministry of Education pamphlets that followed the Act, more specific indication of objectives was given with the underlying concepts at first not far removed from the above possibly-hypothetical examples.

The Nation's Schools (1945) states that at the time of leaving pupils "should feel some confidence in their growing powers and should have found enjoyment in some activity or branch of knowledge likely to be of permanent

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interest to them. They should know what it is to use their own initiative and what it is to cooperate with others for a common purpose: they should have acquired an appreciation of seamliness in both taste and conduct and that sense of self respect which whatever his work, impels the possessor to give to it the best that he has to give." (Sect. 43). There is to be training in body, mind and spirit; and such subjects as literature, music, art, achievements of civilisation, politics, science and craft. "One essential is training to speak and write the mother tongue clearly and well; to read it and listen to it with understanding." (Sect. 43). Further, "the homemaking aspect of education - often the basis of future happiness - is as vitally necessary as it can be interesting." (Sect. 78). Finally the schools are urged to provide "a full school life and a balanced education that is at once practical and general, which will equip a large number of the country's future citizens, to enter the larger world trained in character, adaptable, and awake to the possibilities that lie with themselves of finding and pursuing interests both of mind and hand that will aid their further development and add to their pleasure in life." (Sect. 83).

These objectives cover much of the development of the adolescent. They are re-emphasised in *School and Life* (1947) where, after criticism has been directed at the modern schools that are secondary in name only, the task of the school is stated as being to interpret the environment, complement it, and communicate the standards of any civilised society. "The aim is a more all-round development." (p.46). Some basic skills - elementary maths, English, recording of facts, some manual training - are seen as common to both school and industry but it is felt that while modern conditions set limits on all-round development, there is a greater need to stimulate the leisure. In addition, "Consideration should be





given to training in adaptability." (p.53) - though no advice as to how this should be done is attempted.

Social opportunity - learning to get on with others and make friends - and a sense of personal worth are considered important, along with "a set of customs, a pattern of recognised behaviour, a way of life in regard to which the pure practical things are merely means." (p.98). Admitting divergence of conviction about moral factors, the ideal of today is stated as "adults with strong characters, independent, reliable, able to cope with the responsibilities of life" (p.101) and forward-looking to "world citizenship". In a summary at the end, both industry and education are seen to benefit if children achieve the maximum degree of skill of which they are capable in reading, arithmetic, writing and the use of English, some of the instrumental skills (reading of graphs, etc.), and if they "learn to appreciate good industrial design, and to prefer well-designed goods." (p. 108).

The New Secondary Education (1947) putting the same facts in rounder terms says, as we have seen, that "The aim of the modern school is to provide a good all-round secondary education, not focussed primarily on the traditional subjects of the school curriculum, but developing out of the interests of the children." It goes on, "through its appeal to their interest it will stimulate their ability to learn and will teach them to pursue quality in thought, expression and craftsmanship. It will interpret the modern world to them and give them a preparation for life in the widest sense, including a full use of leisure. It will aim at getting the most out of the pupil that he is capable of, at making him adaptable, and at teaching him to do a job properly and thoroughly and not to be satisfied with bad workmanship, and to be exact in what he says and does." (pp. 28-29).

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The breadth of the objectives, which are, of course, suggestive rather than directive, covers almost all aspects of adolescent growth. Further evidence of this is that "The school must concentrate attention on securing a balanced and harmonious development in which there is not undue emphasis on intellectual growth, but in which intellectual growth is seen simply as one facet of the child. The child's social, emotional, physical and spiritual development demand equally serious considerations." (p.31). The object method is suggested as an aid to "sound intellectual training" as well as to "social training", and in a preface to this discussion, a detailed section is devoted to the importance of curiosity.

It can be seen that by 1947, while retaining the accent on social and related objectives, the aims had spread to reinclude other aspects of the former secondary education. The schools were now less dependent on the concept of the modern school child conjured up by the Norwood Report; a child unable to deal adequately with other than concrete things, failing to establish relationships and interested only in the moment.

Indeed, according to the Act, literacy ceased to be acceptable as a minimum and the new standards of levels of achievement appropriate to the individual's talents meant that if education was in fact thus reoriented, the fallacies underlying the supposed three types of pupils would be exposed.

Educational writers express themselves along very similar lines to the current themes in Ministry publications. Hodgson (1953) feels that the results of secondary modern education will never be seen in university entrants nor in formal exams "but in the production of happy adolescents exporting upon life with some knowledge and understanding



of the community in which they live, with a sense of responsibility and service towards it and its ideals and with an interest in some activity which will give meaning to their work and their leisure."

Leavers, says Consitt (1956), should be potentially sound in character, confident about life, and with zest for living, developed abilities and a friendly familiarity with creative outlets.

Summarising the opinions of teachers and others who have given expression to their views, one may list as the main tasks of the school; to endeavour to provide something of educative value according to the children's own rights, to arouse interest and excite curiosity, to provide a sense of achievement and of social development, and to enable the leavers to go out into the world with some indication of what they have gained from school.

There is little in all this that differs from the aims of general education at the secondary level as indicated in the United States (OLIVER 1950? HAVIGURST 1953, CHAUNCEY 1955), though one must point to the difference in emphasis of one work, Kirkendall's "Goals in American Education" (1948). These goals cover social progress, personal relationships, international relationships, ideological development, ethical and moral values, creative and constructive expression, effective skills and the mastery of interpreting knowledge.

quoted seems representative and indicates the secondary modern school, at least in England, and administrators express

The freedom and flexibility of English implies the necessary implication that there is no one particular modern school. When and course syllabuses are examined

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the resulting picture should have reasonable generality.

A perusal of curricular programmes and suggestions<sup>2</sup> produces the following emphasis: self-reliance; reliability; sound interests, character, and personality; spirit of inquiry; responsibility; enjoyment of healthy life; and ability to earn a living. Of outstanding importance are: critical thinking; clear expression of thought; good use of leisure; spirit of sportsmanship; love of beauty; appreciation of Christianity; and adaptability and skills for social and industrial environments. Underlying all of these is the necessity of purpose both as a function of the school and an objective for the pupils. The tools of learning and communication, while retaining their significance, are fitted into a general pattern of broad development.

Pinsent reaffirms the need for adaptability. The leavers should ".... not only be able to learn and relearn as quickly as possible but they must be willing to do so." (1944, p.65).

With so many factors recognised as important, in certain schools many new subjects were introduced, albeit in simplified form, - on the rationalised assumption that this was in accord with all-round education. Hence on occasion, unrelated topics in piecemeal arrangement led to a curriculum over-crowded rather than full - with more variety than coherence. Still Dent (1946 p.54) believes that the schools should teach many of the basic skills of civilisation which are at present 'picked up' informally and usually inefficiently. These might include the use of telephones, of timetables and directories as well as of everyday tools.

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2. NORWOOD REPORT 1943; COUNCIL FOR CURRICULUM REFORM 1948; NOTTINGHAM REPORT 1949; SCHOOL BROADCASTING COUNCIL 1950; N.U.T. REPORT 1952.





An examination of subject aims contained in the syllabuses of various schools visited and in certain reports (e.g. BRISTOL 1947) and pamphlets (MINISTRY 1947) brought out more clearly the objectives underlying the rather general goals set out above. These objectives can now be listed as follows under various subject headings:

- Physical Education - interest, carry-over value, health attitudes, appreciation of sports, participation in outdoor activities.
- History - Knowledge of man's progress and relationships to fellow beings, different nations, comprehension of current events, citizenship, time sense, knowledge of almanacs and year books.
- Geography - sympathetic attitude to people everywhere, interdependence of man, interest in immediate environment, development of imagination and power to trace cause and effect, maps, sources of information for self, local knowledge, communications, useful information.
- Mathematics - application of fundamental measurements and calculations to leisure, livelihood and citizenship. (wages, bills, shopping, fares, timetables, hire purchase, percentage fractions, interest, rates, rent, scale drawing, discount, meters, simple measures, etc.).
- Science - a scientific outlook and attitude, knowledge of nature, an enquiring mind planning controlled experiments leading to correct deductions, intelligent observation development of wanting to know the why and



wherefore, hobbies for leisure, exposure and rejection of irrationality and superstitions.

English

- Fluent, accurate, intelligent speech, ability to read for information and pleasure, reasonable speed and accuracy in reading and expression, how to get information, (indexes, references, libraries, dictionaries, newspapers), enjoy good literature, sound punctuation, capitalisation, spelling and grammar, ability with forms, telegrams, letters, notes, good attitude to poetry and drama.

Art and Music

- taste, beauty, expression, appreciation of good workmanship, neatness, keen observation, sense of design.

Handicraft

- constructive sense, knowledge of materials, self reliance, will to persevere, adaptability, initiative, accuracy, appreciation of fine and honest craftsmanship, sense of standards.

Housecraft

- home functions and skills, simple facts of physiology, child care and training, whereabouts of clinics, taste for good design.

This list is by no means exhaustive <sup>3</sup> nor are the objectives under each heading, nevertheless the basis of most courses could be found here. Before these collections of objectives, together with the previous information commented upon, are sorted into some systematic grouping, notice should be taken of certain aspects that have been enlarged upon by various writers.

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3. Religious Instruction is a notable omission - statements in this field vary very greatly in spite of the fact that this is the only compulsory subject of the modern school.



Dempster (1946) and Millington (1950) are only two of many who see the necessity to aim at self-respect and incentive, which they claim are lacking in both pupils and teachers. In sympathy with Pamphlet No. 9 Mander (1943) enquires what has become of curiosity; Wall (1943 p.135) says "education must develop curiosity in all directions"; Dempster (1946) expresses the need for a "questioning spirit"; and in the same vein Sir Richard Livingstone (1946) writes that educators should not be ashamed to send children from school ignorant of many things, but rather should it aim to send them "out into life knowing thoroughly something which is itself first rate, knowing how to learn, and interested in the world." (p.17).

Lindsay (1935) has stated that, after literacy, the first requirement for a democracy is the development of a critical attitude and approach. This is echoed by Wall (1943) and Dempster (1946), besides recurring among the objectives listed under varied subjects. Dogma, prejudices, and tacit acceptance are to be replaced by balanced judgment and intelligent reasoning.

A useful grouping of aims is provided by Mander (1943). It should be possible to match the various objectives from the different sources against his aims which are essentially as follows:

1. To give the child the simple techniques necessary for modern life; facility in language and number being taken as the most necessary.
2. To give the child other technical abilities and interests suited to development in leisure time in later life.
3. To give a set of moral and mental standards against which the child may measure the happenings of everyday life.
4. To give training in social and community life so that the child, in due course, may fit into the ways of adult

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5. To give physical care and training collateral with mental care and training.
6. To ensure that the tools are used to finish the job; to create the individual desire to finish the job.

When these aims are broken down into subject or course outcomes individual interpretation of the data is involved. Backed by the preceding surveys, many different lists might be put forward; but it is felt that the differences would not be great enough to invalidate the essentials of the breakdown presented here.

Partial Analysis of Mander's Aims:

1. English usage, reading, arithmetic; use of information sources, expression, etc.
2. Hobbies, technical skills, special interests, outside activities, reading, etc.
3. Appreciation of art and design, anti-social activities in perspective, appreciation of a job well done, adequate aspiration level and standards, critical thinking, moral judgements, etc.
4. Social relationships and attitudes, willingness to give up one's time, doing things without gain always in mind, appreciation of privileges and also responsibilities and duties, etc.
5. Posture and physique, positive attitude to health, appreciation of open air, games, outdoor activities, etc.
6. Desire to learn more, curiosity aroused and maintained, appreciation of the benefits of worthwhile effort, assessment of extent and limits of one's own knowledge and abilities, etc.

This material can now be reorganised to minimise the overlapping and to prepare for evaluation procedures. Because of the nature of this evaluation study, selection of material becomes necessary at this stage. The choice is based on the major considerations: (a) the estimated priority of





the objective, (b) the presence of the objective in the proposed experimental schools, (c) the practicability of adequate assessment. Equal weighting could not always be apportioned to these factors and, in consequence, the nearest approximations to the limits set by the criteria were used. Save in the actual design of test items the objectives were not defined as finitely as would be the case if committees were able to work on each area. No apology is made for this limitation of the present research because it was early realised that a broad survey undertaken by a single person could not hope to define the objectives comprehensively. It was trusted that the teacher assessment of standards would overcome part of the deficiencies arising from the procedure used. It is true that misdirection at this stage of evaluation could invalidate all future work and this sobering thought entered into the selection of objectives to be examined. The choice was thus further influenced by the work that had already been done in measuring certain objectives.

The following classification was developed before the objectives to be evaluated were finally selected during the designing of measuring instruments.

1. Personal Philosophy - Social attitudes, moral judgements, religious beliefs, aspirations, curiosity, desire to progress.
2. Interests - reading, activities, school work, vocation.
3. Thinking - appreciation of principles, ability to understand information in various forms, judgments of arguments, discrimination of fact from opinion.
4. Knowledge and Skills for seeking information - familiarities with libraries and other sources of material.



5. Appreciation - taste for and discrimination of works of art, good workmanship, and industrial design.
6. Creativity - Urge to create, achievements in art or craft, hobbies.
7. Social and Emotional Adjustment - emotional maturity, social behaviour patterns, personal worth and morale.
8. Physical Health - health attitudes, participation in sports and outdoor activities, posture, physical education skills.
9. Technical Skills - products, hobbies, intended application to work or leisure.
10. Functional Information and Skill - general knowledge, English, arithmetic

With this outline in mind each section was reviewed to determine the overall testing programme. Priority and practicability were now combined with the probable time allotment and cooperation to be expected from the schools, as operative criteria. On this basis some areas had to be treated rather summarily. For these an endeavour was made to gain some relevant information from the questionnaire and diary techniques. Time and limited cooperation means that technical skills and creativity could not be assessed by evaluating products - a practical procedure, nor could levels in physical education skills be obtained, though methods were available (LIDDELL 1947).

While the schools' general reply to criticism about current standards in the tech subjects is to the effect that they are concerned with more than the 3 Rs - implying that this may explain the low levels, nevertheless a substantial part of the schools' function is to impart these essentials to further learning. Further, as a tendency to bring them back into favour has already been noted, it was felt that functional information and skills warranted a somewhat substantial

—

weighting to provide a picture that was fair to the schools. The resulting pattern of objectives behind the tests actually used does not therefore indicate the relative values attached to these objectives, though it is implied that they are significant goals of secondary modern education as at present constituted.

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V.

CONSTRUCTION OF MEASURING INSTRUMENTS

"The test constructor cannot be a perfectionist when he is selecting items."

(DAVIS 1951)

In designing material suitable for use with secondary modern school leavers, ability to understand and follow out the instructions becomes of utmost importance, because of the below-average and dull pupils included in the sample. Many of the tests previously developed for measuring similar outcomes to those in mind could not be used nor even adapted in view of their marked dependence upon lengthy written material. While the reading problem can be partly overcome by concomitant oral presentation, levels of difficulty still limit the source and form of the items.

That instruments devised for the Eight-Year Study and since improved, or tests developed along similar lines were not applicable in the present enquiry was made manifestly clear by personal observations of work done by the less-endowed pupils in modern schools. It seemed necessary to plan some completely new tests, though, in practice, it was found that with modification certain existing procedures could be utilised.

As available tests of attainment are not directed at course outcomes but rather at transitory levels of performance, such tests had also to be designed. This was, in fact, an advantage in that it indicated the sorts of reliability that might be expected if a school's staff was constructing its own evaluation procedures.

Tests containing descriptions of different types of tests were perused, along with significant journal articles, theses, and actual test material. Where possible and relevant, recognition type items were preferred to recall. Multiple-





choice, with responses in random order, was decided on as the most appropriate and soundest item-type. In most cases four alternatives were used. This meant that a score representing 25 % of the total could be gained by chance alone - though such an occurrence would be most unlikely. However no correction was made for guessing for two reasons. Firstly, such tests were designed to produce negatively-skewed distribution which tend to nullify the effectiveness of guess-work especially with regard to the higher scores. Secondly, related to this, is the fact that the percentage cut-off level of the standard set by teachers was expected to be somewhat above a quarter of the way up the scale so that those gaining most of their marks by guessing would not reach the accepted level. Moreover the percentage of pupils "passing" the standard is a group assessment - accurate individual scores were not essential. It was noted that any inaccuracies in group means or in numbers of successful leavers would tend to favour the pupils and the schools.

The pilot study suggested that the organisation of items was adequate and the directions were clear. There appeared no difficulties about the appropriateness of the measures. This must have been due, to a large extent, to the personal study of the worst pupils in several schools and the care with which the pilot school staff examined the items during their construction.

As far as possible more items were constructed that were to be finally included. In certain fields this proved a considerable problem. During the trials of this period the statement by Ebel (1951 p. 246) that "skilled, experienced item writers find it difficult to construct interpretive exercises of high quality" proved a comfort. In the main, the final item selection had to be on an 'a priori' basis, assisted by the criticisms of my tutor and the staff of the tryout school.



Some empirical evidence was available in that while the items were being designed, visits were still being made to schools and items could be tried out on pupils and the results validated against staff opinion.

The constructed measures, then, suffer from certain inadequacies; not the least being a lack of analysis concerning the items' discriminating powers. On the other hand it is felt that, as group tests used in a broad evaluative procedure where results are compared with standards based on the same tests, they form a satisfactory battery. Functional rather than formal methods were aimed at; though expediency dictated otherwise in rather more cases than had been anticipated. Finally it must be emphasised that attempt were made to sample and not to cover the respective fields.

## I. PERSONAL PHILOSOPHY

This section covers a very wide field wherein the important aspect is integration. It was hoped that some indication of what was thought important in life could be gained in particulars gleaned from a questionnaire, a diary of out-of-school activities, together with a study of certain significant attitudes.

The diary and questionnaire, in addition, provided information in terms of other objectives, as indicated in the appropriate sections.

### I.1. DIARY

The diary proforma was based on an adaption of the procedure underlying the work of James and Moore (1940). Two cyclostyled sheets were folded in half to make a "small booklet with the following information asked for on the front:

#### DIARY OF OUT OF SCHOOL ACTIVITIES

Name \_\_\_\_\_ Age \_\_\_\_\_ yrs \_\_\_\_\_ mths  
Sex Boy/Girl School \_\_\_\_\_ Class \_\_\_\_\_



Nationality \_\_\_\_\_ No. of Brothers \_\_\_\_\_

Position in family \_\_\_\_\_ No. of Sisters \_\_\_\_\_

CLUBS (Sporting, Religious and other groups to which  
YOU BELONG OUT OF school)

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

Sports TEAMS for which you play in the Winter.

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

Sports TEAMS for which you play in the SUMMER.

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

Do you have a paid job out of school hours? Yes/No

If you have, what is it? \_\_\_\_\_

What jobs (including housework and gardening) are you  
expected to do out of school? \_\_\_\_\_

For each day, Monday to Sunday, a page was provided beginning "I got up at \_\_\_\_\_" and ending "Went to bed at \_\_\_\_\_". The days were broken into hourly intervals excluding school time; for weekdays 7 a.m. - 9 a.m. and 4 a.m. - 11 p.m., for the weekend 6 a.m. - 12 midnight. The weekdays also included space for activities during break and lunch. Within each interval there was space for several activities together with appropriate time taken in minutes.

'Nationality', 'position in family', and number of siblings were asked for to aid in clearer interpretation of the results, if this was so desired. Club membership was to afford a measure of the influence of youth organisations; with further analysis to indicate the directions of interest of the groups involved. Participation in games was not intended to gauge the extent of provision of facilities nor the interest in sport, but rather to evaluate the fusion of



these two as assessed by actual team membership. It was decided that queries about paid jobs and household chores would give additional descriptions of the samples, and would assist in the interpretation of area differences in the allotment of time to various activities as mentioned in the actual diary.

# 1.2. QUESTIONNAIRE.

Name.....Age...yrs...mths Boy/Girl

School.....Class.....

1. Do you intend to stay at school next year? Yes/No

2. Are you going on to fulltime education when you leave?  
Yes/No

If you are, what will it be?.....  
(e.g. Apprenticeship, Commercial, Technical, Hospital,  
etc.)

3. If you start work next year what jobs have you in mind?  
Put your first choice as 1.

1..... 2..... 3.....

4. If you were properly trained and qualified, and knew that there was nothing to stop you, what would you most like to do for a living when you leave school?

1..... 2..... 3.....

5. If you were given the opportunity and knew that your parents would not suffer financially, would you like to remain at school? Yes/No

6. Would your parents like you to stay longer at school if it were possible? Yes/No.

7. What is your father's occupation?.....

8. Has your mother a paid job? Yes/No  
If she has, what is it?.....

9. Are you going to go to Evening Classes? Yes/No.

10. Do you feel that school has done its job in helping you to grow up? Yes/No  
If not, what do you think is the main reason for its failure?.....

.....  
11. If any of the following statements fit in with your reasons for leaving, put a tick in front of them. If you have any other reasons, write them below.

(a) Four years secondary education is enough for the average person.





- (b) School ties you down too much.
- (c) I have learnt all I need to know and can now start living.
- (d) There is a good job that might not be available later.
- (e) I want to be earning and independent.
- (f) My friends are all leaving.
- (g) I have no interest in school-work.
- (h) I must help support the family.

.....

.....

- 12. Do you like school? Yes/No
- 13. Are you looking forward to work? Yes/No
- 14. Do you feel well-prepared for it? Yes/No
- 15. Do you feel well-prepared for life? Yes/No
- 16. What help do you think the school might have given you?  
.....
- 17. What type of reading do you prefer? (school stories, adventure, science, western, romance, mystery, animal-nature, science-fiction, or any other)  
1..... 2..... 3.....
- 18. Do you enjoy reading? Yes/No
- 19. How many books of your very own have you at home?.....
- 20. Do you possess a library ticket? Yes/No
- 21. What daily and weekly newspapers do you read regularly?...  
.....
- 22. Underline the parts of the paper you read regularly (overseas news, reports of crimes, correspondence, editorials, strip cartoons, T.V. and radio, weather, astrology, advertisements, situations vacant)  
Any other parts?.....
- 23. How many times do you usually go to the cinema each fortnight?.....
- 24. How many times do you usually go to church each month?....
- 25. To what religious faith do you belong?.....  
(e.g. Anglican, Methodist, Jewish, None, etc.)

While most of the questions arose directly from the fact that the subjects were leavers, additional information was requested to obtain evidence of interests and attitudes in a form comparable with other enquiries of similar age groups. Q.17 to Q.25 were of the latter type. The reasons



for leaving in Q.11 were based on those given by pupils in the schools visited which were found, in the main, to coincide with those put forward by the recent surveys of early leavers from Grammar schools in England (MINISTRY 1955) and of high school dropouts in the United States (EVANS 1954).

Evidence about possible, formal, further education was to be obtained from the numbers intending to stay at school Q.1, to go to some kind of 'fulltime' education Q.2, and to attend Evening Classes Q.3.

In Q.10 and Q.16 some criticisms of the school were allowed for, with Q's 13-15 really acting as buffers preparing the way for Q.16. From an examination of the 'jobs in mind' Q.3, evaluation of the realism of vocational choice was aimed at; the fantasy choice in Q.4 being to indicate the degree of satisfaction with probable future occupations. Q.5, Q.6, and Q.12 were directed at qualified attitudes towards education as distinct from the attitude scale (Test 10, see below). The other questions either assisted in the interpretation of the above or added to the general description of the leavers' backgrounds.

### I.3. ATTITUDE TO EDUCATION.

This scale was used to tackle two related objectives; satisfaction with educational provision as it affects these adolescents within their comprehension of its possibilities, and the desire to learn more - which is presumably dependent in part on a favourable attitude towards education. It had been hoped to approach curiosity more directly, but experimentation in this field did not seem very encouraging. Forrester (1946) did attempt to measure the desire for intellectual development with a rating scale in the form of three opinions expressed about each of five statements (the extremes could be underlined to broaden the three point scale). The method was used with grammar and modern pupils and the results, which



were largely inconclusive, were later published (FLEMING 1951). The extension and applicability of this technique were limited by the generality of the item content and the wordiness required by the form of presentation.

Al Bassam (1950) in assessing enotical traits, used questionnaires which included 18 questions on curiosity such as Form B 41 "Do you sometimes ask questions about religion?" and Form B 41 "Do you like working out crossword puzzles?" Though he used two forms, he reports a corrected split-half reliability coefficient of .73 for these questions. This must be interpreted in the light of such similarity between questions as Form B 5 "Do you like reading detective or mystery stories?" and Form B 77 "Do you like detective stories?"

A more subtle approach than either of these would appear desirable but no satisfactory alternative came to mind, hence efforts were directed to more-easily defined attitudes. Scales dealing specifically with school, such as Fell's Inventory, did not go far enough. Campbell's scale (1950), with many items based on those of Glassey (1945), being directed at adults as well as children seemed closer to the mark. An analysis of the Thurstone scale values for similar items in the two scales indicated essentially the same rating by Glassey's 40 sorters and Campbell's 20. It seemed justifiable in the circumstances to use such items with Campbell's weightings on the assumption that these were still adequate. Twenty items were selected with respect to suitability of content and spread of attitudes to form a modified scale. The number of items is generally regarded as adequate. The distribution over the range of scale values was as follows:

0-1	1,1-2	2,1-3	3,1-4	4,1-5	5,1-6	6,1-7	7,1-8
2	2	2	2	2	2	1	1
8,1-9	9,1-10	10,1-					
2	2	2					

The actual scale values are included with the items below.



FORM 10.

Read through the following statements carefully. Put a tick in front of each statement you think **TRUE** with. Put a cross if you are **NOT IN FULL AGREEMENT**. Be sure to mark them all.

1935 X

<u>Order</u>		<u>Weighting</u>
10.	1. Education enables us to make the best possible use of our lives.	10.3
11.	2. Only educated people can enjoy life to the fully.	10.1
5.	3. We cannot become good citizens unless we are educated.	9.8
6.	4. I think that my education will be of great use to me after I leave school.	9.6
18.	5. Education will enable one to get a better job in later years.	8.5
7.	6. Education enables us to live a less monotonous life.	8.3
17.	7. Home work is a necessary part of education.	7.6
1.	8. I think that there is a certain amount of value in education.	6.4
2.	9. I like subjects taught in school but I do not like attending school.	5.6
19.	10. Not all children should be given a secondary education.	5.3
16.	11. Education places too much emphasis on intellectual ability.	5.0
3.	12. I dislike education because it means that time has to be spent on homework.	4.1
14.	13. Education leads to discontent when children seek jobs.	3.7
4.	14. Education tends to make people snobs.	3.2
3.	15. I like reading thrillers and playing games better than studying.	3.0
13.	16. Too much money is spent on education.	2.4
15.	17. Education is of little value in later life.	1.8
12.	18. Education does more harm than good.	1
2.	19. I go to school only because I am compelled to do so.	
20.	20. I think that time spent studying is wasted.	

(This is the order in which the items were presented to the pupils.)





#### I.4. PREJUDICE.

Because of the concern expressed by educationalists about lack of preparation for world citizenship, and the recent plans of UNESCO to try to counteract hostile attitudes towards outgroups, it was decided to include some measurement of prejudice.

Statements were selected from Work on The Authoritarian Personality (ADORNO et al 1950) and from those concerning anti-Semitism constructed by Eysenck (1953). As highly significant correlations between anti-Semitism and other expressions of prejudice have been reported, and as the statements chosen had demonstrated marked powers of discrimination, the items used in the test are held to possess adequate validity.

The form of the items, the expression of the thought, action or belief as pertaining to a hypothetical but named individual, was common to many tests in the evaluation and found to be a very satisfactory method of presentation.

HERE ARE EXAMPLES OF WHAT SOME PEOPLE THINK AND SAY. READ THEM CAREFULLY AND SHOW WHETHER YOU STRONGLY AGREE? AGREE? ARE UNCERTAIN? DISAGREE? OR STRONGLY DISAGREE BY UNDERLINING THE ONE OR THESE THAT FITS HOW YOU FEEL BEST.

1. Joe did not think it would be nice having coloured people moving in next door.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
+                      +                      0                      +                      0
- R 2. Susan thought children should be allowed to choose their own religion, rather than just having to follow their parents.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
+                      +                      0                      +                      +

1.  $r$  (corrected ) for Campbell's 45 items = 0.808.

1

3. John felt we should punish criminals more severely rather than try to cure them.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - - + +
4. Sally believed coloured people were not as bright at learning as white people.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - 0 + 0
5. Tony would do things that were not encouraged by his parents if he thought the things were really all right.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
0 + 0 - -
6. Steve was against marriages between white and coloured people on principle.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - 0 + +
7. Bill said there would always be wars because it was just human nature.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - 0 + +
8. Betty thought that people who might have deformed babies should be prevented from having children of their own.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - 0 + +
- R 9. Vera believed that it would be a good thing if sex education was given at school.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
+ + 0 + +
10. Joan thought that a man who was a conscientious objector to military service was a traitor and should be treated as such.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - - + +
11. Nancy was in favour of flogging as a punishment for crimes of violence.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - - + +
12. Sam said people can be divided into two separate groups, the weak and the strong.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - - + +
13. Ken Believed that, in general, women were as intelligent as men.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
+ + - - -
14. Pearl stated that when people do things for others, they always stand to gain something in some way.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
- - - + +
- R 15. Max thought that religious instruction should not be compulsory in schools.  
STRONGLY AGREE, AGREE, UNCERTAIN, DISAGREE, STRONGLY DISAGREE  
+ + 0 - -



only be achieved at the expense of brevity. Religious knowledge as such did not seem to offer a useful source of enquiry; indeed it was difficult to find out exactly what was expected of a fifteen year-old leaver - "... they know what they think about the Good Samaritan, though they may not have made up their mind about Jesus." (PHILLIPS 1954).

Within the related area of moral judgements a number of studies have been carried out in pursuit of information about character. The most significant of these, Character Education Inquiry (HARTSHORNE et al 1930), though it stifled experimentation in the field until fairly recently, provides a useful source of experimental designs along with critical summaries of earlier procedures. Among the latter the techniques developed by Raubenheimer (1925) and used by Terman (1925) seem to offer several fruitful approaches - with the ranking of offences the most suitable for present purposes.

Al Nassam (1950) checked the original orders given by Raubenheimer's 20 judges with 10 English judges for Tests 3 and 4, but failed to do so for the ranking - Test 5. The items being extracted from a much longer list, the order was taken at face value. He reports a fairly high degree of correlation between the offence ranking (given by the score of the squares of deviations from the judges' order) and intelligence;  $r = -0.427$ . Both the forms he used contained 10 short statements, exemplified by Form B.8 "Paul travelled around the country begging his food most of the time. When he was from 13 to 15 years old he went twice from London to Scotland." It is to be expected that with his group ranging in age from 11.10 to 15.3 years and in I.Q. from 57 to 125 (are 89), many would find it difficult to follow themethed through the ranking of ten such items. Probably the correlation of 0.29 obtained between moral beliefs (positively scored)



and Binet I.Q.'s for 16 year-olds, as reported by Havighurst (1949), is a more reliable indication of the true relationship.

The hypothesis behind all of such methods is that "overt conduct is at least in some measure influenced by what people believe about conduct and how well they can apply what they believe in thinking through the problems of conduct. (HAVIGHURST, P.31).

Though moral behaviour is largely situationally determined and socially specified, the knowledge of what actions are judged right can be almost as valuable as the admission of probable outcomes. Accordingly it was decided to have the items that were selected for ranking in order of 'seriousness', also rated in terms of 'rightness'.

1.5(a) - A number of items were constructed to sample actions which in the view of teachers would constitute moral problems for fifteen year-olds. Others were developed from books on character education (JONES 1931; ROHNEX 1922).

### TEST 2A

HERE ARE SOME EXAMPLES OF WHAT SOME PEOPLE DO IN EVERYDAY SITUATIONS. READ THEM ALL CAREFULLY, AND THEN PLACE THEM IN ORDER OF SERIOUSNESS BY PUTTING 1 IN FRONT OF THE MOST SERIOUS, 2 IN FRONT OF THE NEXT MOST SERIOUS, AND SO ON UP TO 6 IN FRONT OF THE LEAST SERIOUS. WHEN YOU HAVE FINISHED SECTION I, DO SECTION II IN THE SAME WAY.

#### SECTION I.

- (33) Because the exam was important, and she felt she just had to pass, Jean copied some answers from her neighbour.
- (6) Although there was a Zebra Crossing further up the road, Tom ran across at an angle dodging between the cars and nearly causing an accident.
- (1) Ray couldn't tell whether the man sprawled in the middle of the darkened street was drunk, hurt, or sleeping, but he didn't stop because he was late already.
- (2) Steve had promised Mr. Clifford that he would return the £7, but now that Mr. Clifford had died suddenly he decided not to tell his family about it and just to forget it.





- (4) Shirley had her money ready to pay the bus conductor but as he didn't get as far as her before the bus arrived at her stop, she got off and put the money back in her pocket.
- (5) Bill found a cake of chocolate in this desk so he said nothing, put it in his pocket, and ate it when he was by himself.

NOW DO THE SAME WITH THE FOLLOWING SIX EXAMPLES

SECTION II.

- (1) In the factory where John worked almost everyone slipped a few articles home now and then, without the boss knowing, so John did the same.
- (2) Mary told her mother that Bill was at the pictures because she knew he would get into trouble if it was known he was with the gang in the park.
- (3) Though it was a non-smoking carriage Stan smoked a few cigarettes as there was no-one else in there at the time.
- (3) Jill hit her little brother hard after she had been slapped by her mother, because Jill felt she just had to get her own back on someone.
- (2) Peter had to get to the Post Office in a hurry so he borrowed a bike from the bike-shed and left it outside the Post Office because he didn't want to be seen putting it back.
- (6) Denis saw a boy take some money from a coat hanging in the hallway, so he went and reported it to some-one in charge.

In the pilot study the 12 items were presented as a single ranking task. This proved much too difficult a task for some of the pupils. The revised form above consisted of two sets of six items. The rank order was established by eight adults - who disagreed only about certain adjacent rankings. The pupils score was the sum of the differences from the accepted order. The correlation coefficient between the two sections was used as a measure of reliability.

$$r \text{ (corrected)} = 0.220 \quad (N = 70)$$

On the basis of this the results of Test 8A must be treated as highly unreliable. The 'jay-walking' item was regarded as quite serious by a number of pupils, perhaps because of the thought of possible consequences. However further analysis shows that the deficiencies go further than this, and it is probable that some practice in ranking should



such a method. Test 8A was always given after 8B had been completed on the assumption that ranking would be easier when applied to familiar materials.

I.5 (b)

TEST 8B

HERE ARE EXAMPLES OF WHAT SOME PEOPLE DO IN EVERYDAY SITUATIONS. READ EACH CAREFULLY AND SHOW WHETHER YOU THINK WHAT THE PERSON DID WAS WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, OR RIGHT BY UNDERLINING THE ONE OF THESE THAT FITS THE ACTION BEST.

1. In the factory where John worked almost everyone slipped a few articles home now and then, without the boss knowing, so John did the same.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      2                      4                      6.
- X 2. Mary told her mother that Bill was at the pictures because she knew he would get into trouble if it was known he was with the gang in the park.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      1                      2                      4
- X3. Though it was a non-smoking carriage Stan smoked a few cigarettes as there was no-one else in there at the time.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      1                      2                      4
4. Jill hit her little brother hard after she had been slapped by her mother, because Jill felt she just had to get her own back on some-one.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      2                      4                      6
5. Peter had to get to the Post Office in a hurry so he borrowed a bike from the bike-shed and left it outside the Post Office because he didn't want to be seen putting it back.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      2                      4                      6
6. Denis saw a boy take some money from a coat hanging in the hallway, so he went and reported it to some-one in charge.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      4                      2                      0
7. Because the exam was important, and she felt she just had to pass, Jean copied some answers from her neighbour.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      2                      4                      6
- X 8. Although there was a Zebra Crossing further up the road, Tom ran across at an angle dodging between the cars and nearly causing an accident.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0                      1                      2                      4.



9. Ray couldn't tell whether the man sprawled in the middle of the darkened street was drunk, hurt, or sleeping, but he didn't stop because he was late already.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0 2 4 6

10. Steve had promised Mr. Clifford that he would return the \$7, but now that Mr. Clifford had died suddenly he decided not to tell his family about it and just to forget about it.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0 2 4 6

11. Shirley had her money ready to pay the bus conductor but as he didn't get as far as her before the bus arrived at her stop, she got off and put the money back in her pocket.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0 2 4 6

12. Bill found a cake of chocolate in his desk so he said nothing, put it in his pocket, and ate it when he was by himself.  
WRONG, WRONG BUT EXCUSABLE, ALL RIGHT, RIGHT.  
0 1 2 4

This part was more satisfactory - the pupils finding no difficulty in making decisions.

$r$  (corrected) = 0.668 (N = 73)

with new weightings based on the selected rank order and on the pooled a priori judgments of a panel of three judges, the reliability was considerably raised. The revised scoring schedule is included in the test above.

$r$  (corrected) = 0.760 (N = 73)

## 2. INTERESTS

Instead of using a formal inventory, the amount of time spent during a week on out-of-school activities was taken as a valid representation of the interests of the groups at the time recorded. Certain cross-checks were possible with questionnaire information (e.g. number of visits to the cinema per week) which afforded some estimation of the validity of the material. By comparison of the times spent on various activities it was planned to evaluate the relative weighting of interests in the different groups. Reading interests were covered more specifically in the questionnaire.

## 3. THINKING.

Objectives subsumed under the concept of critical thinking, though occurring in most aspects of learning, have



been evaluated particularly in the field of social studies and science. The Interpretation of Data (Test 2.52: AIKIN 1942) involving the formulation of reasonable generalisations from material in various forms, is one of this type and has since been reissued by the Educational Testing Services. But as with the Watson-Glaser Tests of Critical Thinking (1942) and the earlier Watson Test (1937), the usefulness of the items on inference, arguments and generalisations depends to a great extent on the length of the statements or paragraphs, and the complexity of possible conclusions. Either a large number of outcomes have to be rated, or marked as strong/weak, follows/does not follow, or wrong/right with accompanying reasons.

Dealing with a related problem Shourd (1930) attempted to produce a test of scientific method without success; the test differing from an information test only by a higher "g" loading.

A much better approach was made by Whellock (1953). His test was applied to cadets on entry to a Service College. Its construction was based on "information that is likely to be known to all the students or to none of them" (p.18). In practice, the test - Thinking in Terms of Science - contained items that could "be answered either from the information supplied in the test or from common knowledge" (p.19). Whellock reports a test-retest reliability coefficient of 0.693 for 59 items. In these tests also the material required a great deal of reading, the value of the test depending of this factor.

### 3. 1 BEST REASONS.

It was still felt desirable to design some instrument that would measure ability to discriminate between fact and opinion - to disentangle emotional arguments from 'rational' arguments. Levels of reasoning are in part dependent on levels of intelligence but it was felt that provided the facts





7. We ought to help others in times of disaster because.....  
we will be thought of more highly.  
then they will help us if we are in trouble.  
we should live up to our ideals.  
this will help us to get to Heaven.
8. Traffic lights are used at crossings because .....  
the government wishes to control the people.  
they may prevent accidents.  
some people are colour-blind.  
they make drivers keep the left.
9. Schools are closed for a period in summer so that .....  
teachers may have a holiday.  
school buildings can be repaired.  
teachers can prepare for next year.  
children will not be indoors in hot weather.
10. We can be sure an article is good if .....  
it is used by a famous star.  
it is advertised widely.  
it has "Made in England" stamped on it.  
it has a Good Housekeeping label.
12. A visit to an Art Gallery is worthwhile because.....  
people will know you have good taste.  
it is something you can do for nothing.  
it will improve your appreciation.  
some famous people may also be visiting there.
13. It is wise to choose which film to go to .....  
by the nearness of the cinema.  
by the information on the hearings and posters.  
by the critics' reviews.  
by whether the book was a classic or not.
13. More people should learn to swim.....  
to be able to enjoy themselves better at the beach.  
so that they can join a swimming club.  
to prevent drowning accidents.  
so that Britain's chances in the Olympic Games will be better.
14. We pay income tax because.....  
we are made to by law.  
the government needs money to do things for us.  
otherwise we would have too much to spend.  
civil servants need to be paid.
15. One should not read comics all the time because.....  
they are hard on the eyes.  
teachers say they are bad for youth.  
they give false ideas about life.  
there are some good books to read.
16. Joe believes Dutch homes are neat and clean because.....  
he has been in many dutch homes and all were neat and clean.  
a Dutch visitor to his school said they were neat and clean.  
he heard someone arguing that they were neat and clean.



in a story he read the Dutch homes were  
neat and clean.

17. Bill is convinced this toothpaste is best because.....  
the advertisements say it has been  
scientifically tested.  
it is cheaper than most and has a  
pleasant taste.  
it contains chlorophyll.  
many dentists recommend it.
18. Criminals are put in jail.....  
because then all wrong-doers will be together.  
to protect society.  
so they cannot teach others how to be bad.  
to make mailbags and work in quarries.
19. You should be kind to animals because.....  
they are protected by law.  
they are more helpless than people.  
they may bear a grudge and attack you later.  
conscience tells you to.
20. Playing sport is better than watching because.....  
you may win a cup or a trophy.  
you become well-known if you are good.  
you keep fit and healthy.  
you make worthwhile friends.

The pupils found no difficulty with the form of the test and appeared to enjoy it. The reliability coefficient is reasonable for a test of this type and length. The inclusion of further numbers from the main enquiry indicated rather greater reliability than shown by the pilot sample results.

$$r \text{ (corrected) } = 0.664 \text{ (N = 71)}$$

$$r \text{ (corrected) } = 0.794 \text{ (N = 122)}$$

### 3.2 COMPREHENSION OF GENERAL INFORMATION.

To supplement the best reasons approach, a test of comprehension was designed. In an attempt to provide a functional and realistic basis, the statements were based on sections from the general travel information contained in a transport booklet. The Green Line Coach Guide was selected for this purpose because few of the pupils were familiar with this service. This meant that it was necessary to read through the statements even though the questions could sometimes be answered from knowledge of local transport regulations.



The booklets are meant for use by the general public, hence one might expect the level of statements to be within the grasp of most children leaving school at fifteen years. The material from the booklets that was used in this test is contained in the appendix.

TEST 14.

HERE ARE SOME QUESTIONS ABOUT INFORMATION IN THE GREEN LII COACH GUIDE. THE ANSWERS CAN BE FOUND IN THE BOOKLET. TURN TO PAGE 2, TO FIND WHERE TO LOOK FOR INFORMATION ABOUT THESE QUESTIONS. WHEN YOU HAVE FOUND THE RIGHT ANSWER? DRAW A LINE UNDER IT.

1. You can enquire for lost property at the Lost Property Office at .....  
9 o'clock on Monday morning.  
2 o'clock on Saturday afternoon.  
5 o'clock on Thursday afternoon.  
6.30 on Friday evening.
2. Boarding a coach between stops is allowed.....  
sometimes.  
never.  
if the conductor agrees.  
if you ring the bell once.
3. When a child of 2½ years occupies a seat, its fare is...  
the same as the adult fare.  
free.  
half the adult fare.  
quarter the adult fare.
4. What would you actually dial to telephone the Traffic Enquiry Office.....  
  
ABBEY 1234.  
ABB 1234.  
EY 1234.  
1234.
5. Luggage can be taken on a coach provided it is placed..  
in the gangway.  
out of the way.  
on the platform.  
on a seat.
6. Articles found in a coach are to be.....  
kept by the finder.  
given to the conductor.  
handed in to the Lost Property Office.  
handed to the Police.



7. A dog is allowed on a double-decker if .....  
it is paid for.  
it does not go on the upper deck.  
it is on a lead.  
you have permission from the conductor.
8. If five persons are waiting for a coach, they.....  
must form a queue.  
may form a line.  
must stand two abreast.  
Need one more person to form a queue.
9. You may not smoke in the .....  
upper deck of a double-decker.  
front of a single deck coach.  
lower deck of a double-decker.  
back of a single deck coach.
10. You can get on a coach at Piccadilly Circus at 10. a.m.  
on.....  
Mondays, Thursdays, Saturdays, Sundays.
11. How much is a weekly ticket if the single trip fare is  
2/1?.....  
18/9, 14/3, 9/-, 12/2.
12. For a return trip, when the adult fare is 3/-, a 7 year-  
old child pays.....  
3/-, 1/6, 1/4, nothing.

The direction to relevant sections via the table of contents maintained interest and a high level of application to the task was evidenced in the pilot survey. While the appropriateness of the material can hardly be questioned, this does not automatically transfer to the framing of the test items. It was perhaps unfortunate that the pilot study did not reveal the difficulty that several children had with Q.1; these claimed that there was no correct answer. An easier example at the beginning would have been an improvement. In Q.9 the negative escaped certain pupils who maintained that two answers were correct. Fortunately these facts were discovered in the first school of the main enquiry, and in this and subsequent testing it was made very clear that for each item one and only one of the answers given was correct. Considering the length of the test reliability appeared adequate.

\* (corrected) = 0.873 (N = 156)

#### 4. KNOWLEDGE AND SKILLS FOR SEEKING INFORMATION.

Tests of study skills are becoming increasingly sig-





nificant in American evaluations. It is not difficult to appreciate why. There is general agreement everywhere that for youth to desire to continue and extend learning after leaving school is a most significant educational objective. For a realisation of this potential an adequate knowledge of where to find relevant data and how to interpret it once found is important. The Sources of Information Test of the Eight-Year Study (Test 7.1; AIKIN 1942) attempts to measure the extent to which such knowledge and skill are possessed by pupils. Spitzer's study Skills Test (1953), the Iowa 'Uses of Information' (see 45th Year Book 1946), and the Use of Library and Study Material (KIRKPATRICK et al 1940) are similar in form and content. The Spitzer test has for instance five sections: 1. Using the dictionary; 2. Using the index; 3. Knowledge of sources of information; 4. Understanding graphs, tables, and maps; 5. Organisation of facts in note taking.

#### 4. 1 LIBRARY SKILLS AND BOOK KNOWLEDGE.

This test was the principal measure of objectives in this field. The questions were in certain cases specific and specialised and perhaps one may criticise these on the grounds that such knowledge would not normally be used by the average leaver. However, it was felt by those teachers who conducted lessons on library and book use that the better pupils should be able to answer almost all of the items correctly. Factors investigated by the test include awareness of limitations of sources, use of the alphabetical system of classification, location of material, knowledge of the setout of books, use of a card catalogue, and knowledge of some common abbreviations used in classification. How well the item content of the test coheres under the joint title is difficult to say though no criticism of the grouping was made by the staff members who checked over the test



TEST 1.

READ EACH QUESTION CAREFULLY. WHEN YOU HAVE FOUND THE BEST ANSWER DRAW A LINE UNDER IT. AN EXAMPLE HAS BEEN DONE FOR YOU.

a. Books may be borrowed from a .....  
museum, picture gallery, library,  
theatre?

1. You would quickly find out where the Amazon River is, in ... a dictionary, a newspaper, an almanac, an atlas?
2. The best place to find out about something important that happened yesterday, is in.....  
an encyclopedia, a newspaper, a dictionary, an atlas?
3. Radio talks are regularly published in full in .....  
Punch, The Listener, daily paper, Everybodies?
4. Information about this year's tides would be found in an.....  
atlas, almanac, encyclopedia, illustrated magazine?
5. You would find the meaning of RAVINE in .....  
a dictionary, a directory, an atlas, a bibliography?
6. You could find the address of a friend by looking in a .....  
dictionary, Who's who, directory, gazette?
7. The best place to find out how to pronounce any word is in .....  
an encyclopedia, an almanac, a dictionary, an index?
8. The best place to check that the newspaper reports of current affairs are correct, is.....  
in the Sunday papers, in a good encyclopedia, on the radio, in a Digest magazine?
9. An almanac contained information about the .....  
calendar, life of other peoples, pools, horse races?
10. You will always find the full name of a book.....  
on the cover, on the title page, in the preface, in the table of contents?
11. The bibliography of a book contains.....  
the references, the maps and diagrams, the list of chapters, extracts from the Bible?
12. Copyright means.....  
it is all right to copy, one has no right to copy  
the illustrations are copied, the book is a copy?
13. Words in an index are arranged in order of.....  
importance, occurrence, difficulty, the alphabet?
14. For a quick idea of the topics in a book, you read through the .....  
preface, index, table of contents, appendix?



15. The letter pp are short for .....  
paragraphs, past and present, sages, printing press?
16. The Roman numeral xvii is .....  
22, 13, 17, 15?
17. The letter l.e. stand for.....  
little, compared with, that is, for example?
18. The letters e.g. stand for.....  
extra, note well, and so on, for example?
19. Facts about ships would be found in an encyclopedia  
volume marked.....  
D-E, G-H, M, R-S?
20. The card catalogue in a Public Library is to be used by.....  
library staff only, teachers only, any reader,  
only members over 21?
21. The usual arrangement of books within the library  
sections is.....  
according to subject matter, alphabetically by titles,  
alphabetically by authors, by date of publication?
22. When you are looking for a special book on nature study  
and the librarian is busy, do you first look.....  
on the shelves, in the catalogue, in an encyclopedia,  
for a friend who is interested in nature study?
23. To find most quickly the catalogue card of book called  
"NURSING SICK ANIMALS" by THOMAS A. WHEELER, would you  
look under.....  
Nursing, Animals, Thomas, Wheeler?
24. The usual length of time a book may be borrowed from a  
library is.....  
a week, a fortnight, three weeks, a month?

Item 3 and 4 required modification on account of  
ambiguity shown during the pilot study. Previously they read:

3. Detailed information about radio programmes would be found  
in.....

1. Punch, the Listener, daily paper, Everybodys?
4. Information about tides would be found in an.....  
atlas, almanac, encyclopedia, illustrated magazine?

In view of the possible confusion, either Listener or  
daily paper and either almanac or encyclopedia were accepted  
as correct for the tryout group before their results were  
pooled with the final results. This leniency applied to only  
a few pupils. That the suburban sample gained in any measure  
from this procedure is thought most unlikely.



#### 4.2 USE OF TABLES.

To assess ability to interpret data in the form of tables, the Green Line Coach Guides were made use of again on the assumption that the tabular presentation should be appropriate to the level of the group tested. The test could not be long because of the tendency towards a 'nil' response with certain pupils. For this reason the last question in Section A on times and in Section B on fares posed a related but somewhat different problem. The test, while very short, did give an indication of the ability under evaluation.

$$r \text{ (corrected)} = 0.733 \quad (N = 132)$$

The actual booklet pages used are to be found in the appendix.

#### TEST 12

NOTE: ALL THE QUESTIONS ABOUT INFORMATION IN THE GREEN LINE COACH GUIDES.

Section A. THESE QUESTIONS ARE ABOUT COACH TIMETABLES. THE ANSWERS CAN BE FOUND ON PAGES 28 AND 29. TURN TO THESE PAGES AND YOU WILL SEE THAT THE FIRST COACH LEAVES GRAVESEND ON A WEEKDAY AT 6.8 (that is, eight minutes past six).

PUT THE ANSWERS IN THE BRACKETS AT THE END OF THE LINES.

1. What time does the third coach leave Gravesend on a Tuesday? (7.8)
2. What time does the third coach leave Gravesend on a Sunday? (8.38)
3. What time does the last coach for Asot leave Victoria on weekdays? (11.3)
4. What time does the last coach leave Gravesend before noon on weekdays? (11.38)
5. What number coach would one catch to go to Sunningdale from London? (702)

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Section B. THESE QUESTIONS ARE ABOUT FARES FOR DIFFERENT DISTANCES. THE ANSWERS CAN BE FOUND ON PAGES 32 TO 35. TURN TO PAGES 32 AND YOU WILL SEE THAT THE SINGLE FARE FROM GRAVESEND TO NORTHFLEET IS 11d.

PUT THE ANSWERS IN THE BRACKETS AT THE END OF THE LINES.





6. What is the single fare from Gravesend to London (Hyde Park Corner)? ( 3/4 )
7. What is the single fare from Gravesend to Ascut? ( 6/3 )
8. What is the single fare from Dartford to Bgham? ( 4/9 )
9. How much would it cost a girl of 13 to go from Northfleet to Swanseabe? (5d)
10. What page gives the single fare from Stanwell to Bgham? (35)

#### 4.3 THE CP INDEX.

The index to street plans in the Coach Guide already used provided a further opportunity of utilising material which the pupils regarded as having some practical meaning for them. It was desired to have some test of familiarity with alphabetical classification and each item in the short test measured a different aspect. Some of the positions for new stops occurred at the top or bottom of columns in the tables, after words with varying numbers of similar initial letters, etc. The actual table of stops is included in the appendix.

#### TEST 13

TURN TO PAGE 207 OF THE GREEN LINE COACH GUIDE. HERE IS A LIST OF COACH STOPS HEADED INDEX TO STREET PLANS. SOME NEW ONES ARE TO BE INCLUDED. YOU ARE TO SHOW WHERE THE NEW NAMES WOULD BE PUT IN MAKING OUT A NEW LIST.

FOR EXAMPLE: The new stop Gupford would be put after Charing Cross and before Elephant & Castle.

#### New Stops

1. Hook would come after HEXTFORD and before HOCK
2. Dombey " " CHARING CROSS " " ELEPHANT & CASTLE
3. Quindile " " PURLEY " " REGENTS PARK
4. Allan " " ALDGATE " " AMERSHAM

#### New Stops

5. West Victoria " " WATFORD " " WINDSOR
6. Tooting Bee " " STAINES BRIDGE " " TOOTING BROADWAY
7. Barnest " " BARNET " " BARNET
8. Sadbush " " ST. ALBANS " " STEVENS



The method required additional elucidation among the duller pupils in some schools but care was taken to keep this at a minimum by concentrating on the example given. In scoring, two marks were allotted to each correct insertion if both the preceding and following steps were given, because it had been noted in the pilot study that some children could correctly place a new step at the top or bottom of a column without fully appreciating the continuation principle.

It was unfortunate that the first new step 'Hock' was so similar in visual form to 'Hook' in the list. It was often assumed that a mistake in typing had occurred and that Hock was meant to be Hook.

$$r \text{ (corrected)} = 0.800 \quad (N = 73)$$

#### 4.4 USE OF MAP.

The final test in this grouping concerned ability to interpret material in map form. The objectives seen as important here were the understanding of the letter-figure grid, and of key symbols, and the ability to follow directions and use a distance scale.

$$r \text{ (corrected)} = 0.633 \quad (N = 72)$$

#### TEST 15.

THESE ARE QUESTIONS ABOUT A MAP OF A SMALL DISTRICT CALLED MANLY. AN INDEX IS GIVEN CONTAINING SOME IMPORTANT PLACES, AND A KEY TO EXPLAIN WHAT THINGS ARE? USING THESE YOU CAN ANSWER THE QUESTIONS.

FOR EXAMPLE: The key shows that T.H. stands for Town Hall, and the Index shows that the Manly Town Hall is in square C2. Find that on the map by going along to C and down 2.

WHEN YOU HAVE FOUND THE RIGHT ANSWER TO EACH QUESTION BELOW, DRAW A LINE UNDER IT.

1. The name of the school nearest to the Town Hall is.....  
Manly Grammar, St. Luke's, Manly Infant, Hook County?
2. The direction of Manly Station from Milford Station is.....  
North, East, South, West?
3. The direction of Manly Infant School from Hook County School is.....  
South West, North, North East, North West?



4. The pond nearest St. Lukes School is in square.....  
C3, C4, E3, E4?
5. The direct distance between the two Railway Stations is ....  
 $\frac{1}{2}$  mile,  $\frac{3}{4}$  mile,  $\frac{1}{2}$  mile, 1 mile?
6. The direct distance between the two Churches is .....  
 $\frac{1}{2}$  mile,  $\frac{3}{4}$  mile,  $\frac{1}{2}$  mile, 1 mile?
7. The public building nearest to the river is a.....  
School, Station, Church, Town Hall?
8. The shortest way by road from Trinity Church to Manly  
Grammar School passes.....  
over Arch Bridge, by Milford Station,  
by St. Lukes School, over Ward Bridge?
9. The shortest way by road from Hock County School to Manly  
town Hall passes the .....  
Manly Infant School, United Church,  
Manly Station, Trinity Church?
10. Two cut-throats (or No-Through-Roads) are to be found in  
square.....  
C4, D2, E1, E2?

## INDEX

Arch Bridge	C3
Hock County School	E4
Manly Grammar School	D4
Manly Infant School	E3
Manly Station	B3
Manly Town Hall	C2
Milford Station	E3
St. Lukes School	E3
Trinity Church	C1
United Church	C3
Ward Bridge	A3

## KEY

Town Hall
Bridge
School
Church
River
Road
Railway Station
Pond

## 5. APPRECIATION.

### 5.1 DESIGN DISCRIMINATION.

In spite of the denunciation of psychological tests of appreciation by Munro (1941) who complains that they measure only standardised norms of taste, whereas, "Even for adults some individuality in taste, some divergence from current authority, is recognised as valuable in a democratic society".



(p.344), it was decided that experimentation should be made in this area. It may be true that what people like is less important than why they like or how they come to like, yet what they like still presents a useful and interesting field of enquiry.

The literary approach through poetry discrimination (SPPL 1960; JENN 1961) though constructed for age groups similar to those of the present study, were set aside in favour of more pictorial (pictorial) material. The preponderance of written matter already envisaged for the enquiry and the possibility of antagonism towards poetry, suggested that in spite of the worth of such tests and the claims that poetic appreciation is related to pictorial and musical appreciation, a method involving more familiar discrimination would be more appropriate.

Appreciation of art is obviously too wide and vague, encompassing concepts of what one likes, what one thinks is good art, and what one thinks is beautiful. Thomas (1954) advocates assessing appreciation of good design by choice of good examples and criticism of bad, backed up by additional information about the carry over of such standards into art and craft work, and the time spent on choosing, seeing, or telling about it. Even then he warns that the test results may give a wrong impression of some individuals.

Certain measures have been constructed for work in this field - with varying degrees of approval by critics. The Graves Design Test appears the best to date, but expense, and the abstract nature of the designs, caused it to be passed over in the present study. The Meier Art Judgment Test, also in booklet form, suffers because of the limited scope of the item paired comparisons of paintings. Chance again figures too highly in the test<sup>2</sup> used by Burt (1933) and Bulley (1933),

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2. Published in The Listener, 18.1.33.





consisting of nine pairs of photographs of jars, armchairs, glasses, etc. The pictures were chosen by Bulley from a fuller list of nineteen pairs in her book "Have You Good Taste" (1933); a similar list of pictures in pure instead of applied art appeared in an earlier publication (1935). Cattell (1948) comments that it is a useful 'snap' test lasting only a few minutes; necessarily rather unreliable on account of the fewness of items. This seemed a profitable approach and it was noted that validity was based on the unanimous and independent agreement of six experts (BULLEY 1934).

Of more recent nature was the Design Test constructed by the Council for Industrial Design. This consisted of twelve sets of three photographs of common household objects together with points to be noted in judging the objects. However the principles underlying the choice of test material seemed based more on prevailing fashion than sound and attractive design and the publication has now been withdrawn from the market. Ranking on a larger scale was used by Greenough and Crofts (1949) in their school survey. Here three sets of thirty-one postcards of abstract shapes and common articles had to be ranked but the method necessitated individual testing.

Battersf (1947), after looking at available tests, designed one herself from clippings of photographs and illustrations cut of current magazines, newspapers and books of art. She constructed 57 forms with three pairs in each - two pleasing, two partly pleasing, and two displeasing.

While this technique is admirable and would seem to suit the present purpose, a survey of material on hand at the Council for Industrial Design indicated that a great deal of time would be needed to collect satisfactory photographs. This good and bad are fairly easy to come by but the mediocre is difficult to choose. The alternative procedure was to



make use of an existing test. That chosen, while published some time ago, offered in a modified and adapted form, a test with many of the qualities desired. This instrument, the McAdory Art Test (1929) was revised and restudied by 30 art experts in 1933 (SICELOFF et al), but little alteration was made.

Each of the 72 items consists of four plates of similar objects to be ranked in order of liking. The material can be grouped by analysis as dealing with shape, dark and light, colour, mass, or line. With scoring based on an agreed ranking within each item - obtained from the pooled judgments of 100 experts - it is to be noted that a single mistake penalises with the loss of two points. Reliability reported varies from 0.79 to 0.93 according to the population used, and the validity is based on correlation with other tests: 0.73 with the Christensen Art Test, 0.27 with Meier-Seashore Test (which, it is suggested, indicates that art appreciation depends on the objects judged), and 0.15 with I.Q. (which is thought a satisfactory criterion). A low correlation with teachers' ratings of art work is recorded.

While many of the test items contain material that looks dated apparently the underlying principles are still being adequately measured. As recently as 1954 Green and his co-authors have considered the test worthy of introduction into an evaluation scheme - particularly as a contribution to measurement in the field of industrial arts.

After due consideration it was decided to shorten the test and in so doing to eliminate those items that seemed unsatisfactory on the grounds of changes in colour taste or where the pictured objects were likely to produce a humorous element disturbing to reliability. Vernon (19) had used the McAdory plates in two forms of 36 items in a training college, placing the cards on the walls of a room and allowing the students to start with any card and move round. Neither



the shortening nor the use as a group test seemed to diminish the value of the test appreciably.

The final selection of 20 items was effected after a preliminary shorting had reduced the items to 33. Twelve art students at the Institute assisted in this process and the same group was used to check the original ranking to see if time or locale had significant effects on the chosen set. In sixteen cases the agreement was of such high order that the marking needed no altering, but in four items, though the order was substantially the same as in the original, slight changes in order were accepted as correct alternatives. In view of the fowness of items combined with the scoring limitation already referred to, it was not surprising that reliability was rather low. A revision of the scoring method yielded some improvement. The new method consisted of marking only the ranking of the best and worst example in each item, with the provision of alternatives in certain cases based on the distribution of the art students' judgments. No alteration was made in the presentation, which followed the group technique used by Vernon - hence in most items the choice was still as wide as in the original McAdory scale.

The items used were as follows:

Item No.	Plate No.	Description	Analysis	Marking	
				Best	Worst
1	1	Lettering	shape	B	A
2	2	Tables	dark and light	C	B
3	4	Gates	line	C or D	A or B
4	8	Plates	dark and light	B	C
5	11	Pitchers	mass	B	C
6	17	Paintings	dark and light	A	D
7	23	Landscape architecture	dark and light	A	B



Item No.	Plate No.	Description	Analysis	Best	Marking Merit
8.	24	Textiles	colour balance	C	D
9.	25	Spoons	Shape	B	A or D
10.	29	Textile borders	dark and light	C	D
11	37	Lettering	shape	B	A
12	40	Statues	line	B or D	A or C
13	43	Decor	line	C	B
14	44	Mugs	dark and light	A	B
15	47	Plates	dark and light	A	D
16	53	Paintings	dark and light	C or D	A or B
17	54	Cups	colour balance	B	C
18	56	Paintings	dark and light	D	C
19	61	Chalices	shape	C	D
20	68	Page margins	mass	A	D

Original Scoring  $r$  (corrected) = 0.532 (N = 72)

Revised scoring  $r$  (corrected) = 0.641 (N = 72)

### TEST 2

**Instruction:** Each card presents a subject in four different ways lettered A, B, C, and D. Look at the four illustrations on each card and select your first choice, second choice, third choice, and fourth choice. In the columns below, under the number of each card, write 1 opposite the letter of your first choice, 2 opposite your second choice and so on. For example, if on a certain card your first choice is B, second choice D, third column for that card as follows, A .... 3

B .... 1

C .... 4.

D .... 2.

### 5.2 ATTITUDE TO GOOD WORKMANSHIP.

Because of the frequent occurrence in lists of general aims, also in discussions of the objectives of various subjects in the school syllabuses, of the desirability of gaining a sound attitude to good workmanship, it was hoped that a scale





could be designed to measure this quality of mind. The functional objectives concerned resolve around such concepts as doing a thing well for its own sake, pride in reasonable perfection and dissatisfaction with ill-completed tasks or products. Though practical issues should assume some importance in judgments of this kind, essentially, the sound attitude is opposed to sheer 'practicality'. The test constructed attempted to offset these extremes in simple, probable situations, readily related to the pupils' personal experiences. The choice of the rating terms presented some difficulty until the opposition silly/ sensible was decided upon. This concealed the intention of the test, as later checks with individual children demonstrated.

The scoring for the items in the direction of good workmanship (marked G below) progressed from 0 to 3; with the other items this was reversed.

$$r \text{ (corrected)} = 0.778 \quad (N = 122)$$

## TEST 2.

HERE ARE EXAMPLES OF WHAT SOME PEOPLE DO IN EVERYDAY SITUATIONS. READ THEM CAREFULLY, AND SHOW WHETHER YOU THINK THEM VERY SILLY, SILLY, SENSIBLE, OR VERY SENSIBLE, BY UNDERLINING THE ONE OF THESE THAT FITS THE PERSON BEST.

1. In making a wooden tray for his mother's birthday, Dave noticed one of the handles had split, but he glued it together so that it would not be noticed unless you looked closely.  
~~VERY~~ SILLY, SILLY, SENSIBLE, ~~VERY~~ SENSIBLE.  
                   3                   2                   1                   0
- Q 2. Stan rewrote the letter to his friend several times because he did not think his writing was good enough the first few times.  
       VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
                   0                   1                   2                   3
3. When doing the spring cleaning Betty didn't bother to dust the top of the wardrobe because no-one could see up there. But she did a good job of polishing the brass.  
       VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
                   3                   2                   1                   0



- Q 4. The tool Dennis had taken so long to make worked very well, but he was not satisfied with its appearance so he took it apart and began again.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 0 1 2 3
- Q 5. At the office Sue had a name for being very fussy. If ever she made a mistake in typing, which was very seldom, she started afresh with a new page.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 0 1 2 3
6. Tom was ashamed of the state the garden was in, but he just didn't seem to have the time, what with football, the pictures, and going out with the boys.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 3 2 1 0
7. When Len was told that the small wheel he was working on in the factory was only to be fitted in at the back of the machine and would be covered in, he realised it did not need to be well finished.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 3 2 1 0
- Q 8. When June found she had dropped a stitch halfway down the back of the jersey she had nearly finished, rather than darn it, she unpicked to the hole and reknitted it.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 0 1 2 3
- Q 9. Wally used to spend a short time each morning tidying up his room, though his friends said he was a sissy.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 0 1 2 0
10. Of the two pairs of shoes she liked, the brown ones were well-made but a few shillings dearer than the black pair which had been poorly sewn. Still Susan had to be practical so she bought the black pair.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 3 2 1 0
11. Ben found that his arm soon became tired when he was painting the bathroom walls, and so he thinned the paint to make it easier to brush on, with the result that the paint was a slightly different shade. Still he wasn't so tired at the end.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 3 2 1 0
12. Bob helped Jack clean his bicycle. They made a great job of the framework and mud-guards, but didn't do the spokes and rims as they felt that was too fiddly.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 3 2 1 0
- Q 13. So that the mend would be more nearly invisible, Jane took her time repairing her brother's jacket, though it meant she was late for her dance.  
 VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
 0 1 2 3



14. Sally could not play the piece without mistakes yet, but as there would be no musicians at the evening at which she had been asked to play, she did not bother to practise further.

VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
3 2 1 0

15. Jim was interested in the subject he was studying, but decided to learn just enough to pass the examination, because no extra credit was gained for higher marks.

VERY SILLY, SILLY, SENSIBLE, VERY SENSIBLE.  
3 2 1 0

## 6. CREATIVITY.

As previously indicated it was not possible to assess objectives under this heading. In a specific and limited sense some evaluation could be effected by noting interests in art activities and related hobbies.

## 7. SOCIAL AND EMOTIONAL ADJUSTMENT.

There has been a great deal of experimentation in this field, though little of it very satisfactory, especially when the results are intended for the prediction or guidance of an individual's behaviour. For present purposes the choice of a possible approach is both narrowed and broadened at the same time in that group techniques of the pencil and paper type must be employed, yet the results are required only for group considerations.

This rules out such useful approaches as Sanders Insecurity/Security Test (1938), used by Croft (1951) in his class evaluation, and Doll's Vineland Social Maturity Scale, which has already been applied in an English setting (KELLER-PRINGLE 1951). The Rhode and Kildreth Sentence Completion test technique overcomes the problem that most of the available tests are based on American concepts and behaviour, but the organisation and interpretation of results would have involved more time than could be allotted. The Minnesota Personality Scale (DARLEY AND McKNAMAHA 1941) includes a section on morale (in which "low scores usually indicate cynicism or lack of hope in the future") which might be significant in view of secondary modern objectives in this



area, but besides being aimed at the American college level it has a number of items which are clumsily constructed in order to fit in with the required pattern of response.

The emphasis on purpose in the Washburne Social Adjustment Inventory also appeared attractive, but the weighting method applied to the various questions and the ton wishes seemed rather arbitrary and in any case the test would need reconstituting for an English group.

#### 7. 1 SOCIAL ADJUSTMENT.

The most valuable instrument for sampling this field seemed to be the Californian Test of Personality (THORPE et al 1939) which, with all its weaknesses, fitted into the evaluation plan more easily and satisfactorily than any other. While the low sub-test reliability correlations reported (0.60 to 0.80) mitigate against the projected interpretation of individual profiles, this deficiency of the test - subjected to severe criticism - does not concern us. The split-half reliability coefficient of 0.933 (N = 334) for the whole test is reasonable and encouraging.

The test consists of two sets of six sub-tests of twelve items; set 1 'personal security'; set 2 social security, with reliabilities of 0.888 and 0.867 respectively. Correlation between the two sets is given as 0.66. The validity is based on item selection and construction in the main - other criteria are mentioned though inadequately defined. Some skill has been shown in the wording of questions, which should aid in obtaining truthful replies.

As in the investigations of Havighurst and Taba (1949), using a similar test, this enquiry is less concerned with how factual and exact are the groups' statements than with how the pupils see themselves and their adjustment or how they are willing to be seen.





While it may be argued with respect to such questionnaires, that the pupils may not always be truthful, especially when the truth is embarrassing or humiliating, that they may not be able to judge themselves, that the questions may be ambiguous, or that simple agreement or disagreement cannot be wholly truthful, it is nevertheless possible to obtain a reasonable picture of the pupils' feelings and opinions about themselves. At the very least one gains the picture they are willing to have other people see.

For a number of reasons the test was modified and adapted: the original test was too long, certain items were worded in terms inappropriate to the English testee, the space at the foot of each page to record a score seemed to belie the instructions which stated explicitly that no answer was either right or wrong, and the naming of the sections and sub-tests on the cover of the booklet could have influenced the perceptive child. Further, as the separate sub-tests, though entitled with the concepts which it was hoped to measure, did not appear sufficiently separate and meaningful, a combined total was assumed to have more justification.

Eight of the sub-tests were used in the pilot study, these being selected mainly on appropriateness. To limit the material for each child in the pilot study, they were divided into two forms of four sections each. This meant that approximately 35 pupils would do each form. On the basis of the reliability coefficients obtained for each section and for combinations of sections, five sub-tests were selected for the final testing. With such small samples the method was arbitrary to some extent but the results appeared to justify the method.



Pilot Study Odd-even Reliability Coefficients

1A	0.597	1B	0.308
2A	0.354	2B	0.619
3A	0.664	3B	0.149
4A	0.708	4B	0.591
Form A	0.603 (N = 34);	Form B	0.583 (N = 36)

After the omission of 1B, 2A, and 3B, Form A reliability rises to 0.866 and Form B to 0.641.

In the final testing the same cyclostyled test papers were used as in the tryout; every pupil receiving both forms with certain sections omitted. As the questions were all read out, this caused no difficulties. The reliability for the test as a whole (3 sub-tests) is somewhat lower than that of the original test but appears reasonable for the purposes of group evaluation. The titles of sub-tests did not appear on the test blanks.

$$r (\text{corrected}) = 0.790 (N = 267)$$

TEST 19.

Instructions: Before each of the following questions, make a circle around the Yes or No. For example, if you have a dog at home make a circle around Yes. Do the other one the same way.  
 Yes No. A. Do you have a dog at home?  
 Yes No. B. Can you ride a bicycle?  
 Do the following questions in the same way. The answers are not right or wrong, but show what you think, how you feel or what you do about things. Go right on from one section to another until you have finished them all.

Section 1A. (SELF RELIANCE)

Yes No. 1. Would you rather plan your own work than to have some-one else plan it for you?

Yes No. 2. Do you usually apologise when you are wrong?

Yes No. 3. When you have some free time, do you usually ask your parents or teacher what to do?

Yes No. 4. When someone tries to cheat you, do you usually try to stop them?

Yes No. 5. Is it easy for you to answer questions or discuss things in class?

Yes No. 6. Do you like to meet new people or introduce them to others?



- Yes No. 7. Do you usually go to bed on time, even when you wish to stay up?
- Yes No. 8. Is it hard to do your work when someone blames you for something?
- Yes No. 9. Do you usually eat food that is good for you, even if you do not like it?
- Yes No. 10. Do your parents or teachers usually need to tell you to do your work?
- Yes No. 11. Do you get excited when things go wrong?
- Yes No. 12. Do you usually keep at your work until it is done?

Section 3A. (SOCIAL STANDARDS)

- Yes No. 25. When people get sick or are in trouble, is it usually their own fault?
- Yes No. 26. Is it all right to disobey teachers if you think they are not fair to you?
- Yes No. 27. Should only the older boys and girls be nice and friendly to new people?
- Yes No. 28. Is it all right to take things you need if you have no money?
- Yes No. 29. Is it necessary to thank those who have helped you?
- Yes No. 30. Do children need to obey their fathers or mothers even when their friends tell them not to?
- Yes No. 31. If a person finds something, does he have a right to keep it or sell it?
- Yes No. 32. Is it all right to make fun of boys and girls who do not believe what you do?
- Yes No. 33. Should children obey signs that tell them to stay off other peoples' grounds?
- Yes No. 34. Should children be nice to people they don't like?
- Yes No. 35. Is it all right for children to cry or whine when their parents keep them home from a show?
- Yes No. 36. Is it all right to cheat in a game when the umpire or referee is not looking?

Section 4A. (FAMILY RELATIONS)

- Yes No. 37. Do you have a hard time because it seems that your family hardly ever have enough money?
- Yes No. 38. Do your family seem to think you are just as good as they are?
- Yes No. 39. Are you unhappy because your family do not care about the things you like?
- Yes No. 40. When your parents make you obey, are they usually nice to you about it?



- Yes No. 41. Do your family often claim that you are not as nice to them as you should be?
- Yes No. 42. Do you like both of your parents about the same?
- Yes No. 43. Does someone at home nag you much of the time?
- Yes No. 44. Does it seem to you that your family at home treat you meanly?
- Yes No. 45. Do you try to keep boys and girls away from your home because it isn't as nice as theirs?
- Yes No. 46. Do you sometimes feel like running away from home?
- Yes No. 47. Do you feel that no one at home loves you?
- Yes No. 48. Have you often felt that your parents thought you would not amount to anything?

Section 20. (FEELING OF BELONGING)

- Yes No. 13. Do pets and animals make friends with you easily?
- Yes No. 14. Are you proud of your school?
- Yes No. 15. Do your classmates think you cannot do well in school?
- Yes No. 16. Are you as well and strong as most boys and girls?
- Yes No. 17. Are your cousins, aunts, uncles, or grandparents as nice as those of most of your friends?
- Yes No. 18. Are the members of your family usually good to you?
- Yes No. 19. Do you often think that nobody likes you?
- Yes No. 20. Do you feel that most of your classmates are glad that you are a member of the class?
- Yes No. 21. Do you have just a few friends?
- Yes No. 22. Do you often wish you had some other parents?
- Yes No. 23. Are you sorry you live in the place you do?
- Yes No. 24. Do your friends have better time at home than you do?

Section 4B. (SCHOOL RELATIONS)

- Yes No. 37. Do you think that boys and girls like you as well as they should?
- Yes No. 38. Do you think children would be happier if the teacher were not so strict?
- Yes No. 39. Is it fun to do nice things for some of the other boys and girls?
- Yes No. 40. Is school work so hard that you are afraid you will fail?





- Yes No. 41. Do many of the children get along with the teachers much better than you do?
- Yes No. 42. Does it seem to you that some of the teachers are against pupils?
- Yes No. 43. Do your schoolmates seem to think that you are nice to them?
- Yes No. 44. Would you like to stay home from school a lot if it were right to do so?
- Yes No. 45. Are most of the boys and girls at school so bad that you try to stay away from them?
- Yes No. 46. Do your classmates choose you as often as they should when they play games?
- Yes No. 47. Do many of the other boys and girls claim that they play games fairer than you do?
- Yes No. 48. Do the boys and girls usually treat you well at school?

#### 7. 2 MATURITY OF EMOTIONAL DECISIONS.

It had been hoped to measure some aspects of maturity as well as adjustment because secure as the latter may be this does not necessarily imply adequateness in the former. The most promising work upon which to construct a measure of emotional maturity seemed the Interest-Attitude Tests (PRESSEY 1935). These, based on the earlier I-A Tests (PRESSEY 1921) offered an appraisal of the maturity of individuals or groups. The items (360 from 950) were selected on their discrimination between older and younger groups, and validity correlations of 0.63 to 0.72 with combined estimates of emotional maturity made by guidance workers are reported for the test as a whole. Over 4000 were used in the standardization sample and the reliabilities for single grades varied between 0.94 and 0.96.

In its present form the test required probably as much modification as did the former tests for English usage (COLLINS 1927). Further it was too long to be included in the evaluation battery. Two sections covered ground not otherwise evaluated and a short test involving 'admirable characteristics' and 'worries' was developed. Noting the comments on age charges in a latter publication (PRESSEY AND



RE-INSUR (1944), ten words listed as positive items -

indicating mature choices - in the worry lists were mixed with ten negative - chosen by younger, i.e. less mature, individuals and ten positive descriptions of admired persons mixed with ten negative. The pupils were instructed to tick or double tick in each section; each tick of a positive word counted as plus one, each tick of a negative, minus one. The score was a combination of the section totals.

The reliability coefficient was obtained here by correlating the scores on each section. This provides a crude measure because the concepts involved in the sections are complementary rather than supplementary. In this light the resultant coefficient was considered satisfactory.

$$r \text{ (corrected)} = 0.633 \text{ ( } N = 71 \text{ )}$$

It was noted that in the norms provided for the Interest-Attitude Tests sex difference (showing a superiority of girls over boys), while negligible at 13½ - 14 years, became significant at 14½ - 15 years. It was therefore expected that a sex difference would show up in the evaluation results.

#### TEST 13.

Section A HERE ARE SOME WAYS OF DESCRIBING PEOPLE. READ THEM THROUGH AND PUT A TICK IN FRONT OF 10 WORDS THAT DESCRIBE PERSONS YOU LIKE OR ADMIRE. PUT 2 TICKS IF LIKE OR ADMIRE THEM VERY MUCH. BE SURE TO TICK 10 WORDS.

<u>Co-operative</u>	daring	dependable	rich
lovely	<u>broadminded</u>	well dressed	<u>tolerant</u>
<u>reliable</u>	wide awake	<u>sincere</u>	busy
graceful	<u>sociable</u>	good looking	<u>law-abiding</u>
<u>conscientious</u>	quick	<u>sympathetic</u>	gentle

Section B HERE ARE SOME THINGS PEOPLE WORRY ABOUT. PUT A TICK IN FRONT OF 10 THINGS ABOUT WHICH YOU ARE MOST LIKELY TO WORRY OR FEEL ANXIOUS. PUT 2 TICKS IF YOU ARE LIKELY TO WORRY OR FEEL ANXIOUS ABOUT THEM VERY MUCH. BE SURE TO TICK 10 WORDS.

ability	whisperings	family	dying
sins	<u>clothes</u>	trouble	<u>self-consciousness</u>
<u>appearance</u>	being unhappy	<u>money</u>	<u>aching</u>



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TEST 1.

READ THROUGH EACH QUESTION CAREFULLY AND PUT A TICK IN FRONT OF THE ANSWER THAT SEEMS TO YOU THE RIGHT ONE.

1. When you find a pencil belonging to some-one else in a place belonging to you, What ought you to do?
- 1 Put it where the owner might find it, hoping that he won't.
  - 2 Try to find who owns it and return it.
  - 0 Keep it, hoping the owner won't notice it.

What would you be most likely to do?

- Put it where the owner might find it, hoping that he won't.
- Try to find who owns it and return it.
- Keep it, hoping the owner won't notice it.

2. If you are doing a mental arithmetic test in school, and while you are stuck for an answer the person next to you accidentally lets you see what the answer is, What ought you to do?
- 0 Write the answer down.
  - 1 Keeping the answer in mind, continue to think till you get it yourself.
  - 2 Do nothing further to the problem, and tell the teacher afterwards.

What would you be most likely to do?

- Write the answer down.
- Keeping the answer in mind, continue to think till you get it yourself.
- Do nothing further to the problem and tell the teacher afterwards.

3. If you were watching a game in which your side was losing and you saw one of your side break the rules just enough to give the team an advantage, What ought you to do?
- 2 Shout "foul".
  - 1 Keep quiet although you feel uncomfortable inside.
  - 0 Think he's done the best thing for the side.

What would you be most likely to do?

- Shout "foul".
- Keep quiet although you feel uncomfortable inside.
- Think he'd done the best thing for the side.

4. If a friend of yours was ill in hospital and the only time you were allowed to visit him was on a Saturday afternoon, when you wanted to go to the cinema, What ought you to do?
- 2 Spend the Saturday afternoon with your friend.
  - 0 Go to the Cinema and not to the hospital.
  - 1 Squeeze in a short visit to the hospital before going to the cinema.





5. Suppose you and your chief rival had been involved in some adventure in which he had played the bigger part, and you were telling a circle of friends about it, What ought you to do?
- 0 Leave your rival out altogether
  - 1 Exaggerate your own part enough to make it more interesting.
  - 2 Tell the strict truth, and give your rival all the glory.

What would you be most likely to do?

Leave your rival out altogether  
Exaggerate your own part enough to make it more interesting. Tell the strict truth, and give your rival all the glory.

6. If some-one had promised to take you to a pantomime and then forgot his promise, What ought you to do?
- 0 Quarrel with the person who had broken his promise.
  - 1 Say nothing, but stop being friendly with him.
  - 2 Make up your mind that it cannot be helped and do something else instead.

What would you be most likely to do?

Quarrel with the person who had broken his promise.  
Say nothing, but stop being friendly with him.  
Make up your mind that it cannot be helped and do something else instead.

7. If the rest of the household is out and you are playing with some friends outside, and you have been told to be sure to go to bed at the usual time, What ought you to do?
- 2 Leave the rest at the proper time and go home.
  - 0 Play as long as you like since no-one will know.
  - 1 Just stay a little longer than usual.

What would you be most likely to do?

1. Leave the rest at the proper time and go home.  
Play as long as you like since no-one will know.  
Just stay a little longer than usual.

8. If there was something you wanted very much to buy, and you had already spent all your pocket money, and there was money in a vase which you knew had been forgotten about, What ought you to do?
- 2 Do without and wait till next week.
  - 0 Take the money, knowing it won't be noticed.
  - 1 Remind your parents of the money and ask if you might have some.



What would you be most likely to do?

Do without and wait till next week.  
Take the money, knowing it won't be noticed.  
Remind your parents of the money and ask if you might have some.

9. Suppose you had promised to take some books to a friend at a certain time, and just as you were setting out with them somebody else came to ask you to come to spend the weekend in the country, leaving immediately, What ought you to do?
- 1 Post the books with a note saying you are sorry for their arriving later than you had arranged.
  - 0 Go for the weekend and leave the books till next week.
  - 2 Take the books as arranged and give up the weekend.

What would you be most likely to do?

Post the books with a note saying you are sorry for their arriving later than you had arranged.  
Go for the weekend and leave the books till next week.  
Take the books as arranged and give up the weekend.

10. If you are very late in the morning, What ought you to do?
- 1 Wash the parts that show.
  - 2 Wash as much as usual but hurry over it.
  - 0 Don't wash at all, and hope it won't be noticed.

What would you be most likely to do?

Wash the parts that show.  
Wash as much as usual but hurry over it.  
Don't wash at all, and hope it won't be noticed.

11. Suppose you are reading a thrilling book and your mother said that she wants someone to go shopping for her, What ought you to do?
- 1 Finish the part you are at and then go.
  - 0 Pretend you didn't hear her and bury yourself in the book.
  - 2 Leave the book where it is and go at once.

What would you be most likely to do?

Finish the part you are at and then go.  
Pretend you didn't hear her and bury yourself in the book.  
Leave the book where it is and go at once.

12. If you have accidentally broken a dish and you know the owner will be very angry, What ought you to do?
- 0 Think up the best story and stick to it.
  - 1 Pretend you don't know anything about it.
  - 2 Clean up and bear the results.



What would you be most likely to do?

Think up the best story and stick to it.  
Pretend you don't know anything about it.  
Own up and bear the results.

13. If you were passing in front of the rest of the class and tripped over something, falling in such a way which hurt you but which the others found funny,  
What ought you to do? 0 Tell them angrily to "shut Up".  
1 Get back to your seat as fast as you can.  
2 Laugh with the rest.

What would you be most likely to do?

Tell them angrily to "Shut up".  
Get back to your seat as fast as you can.  
Laugh with the rest.

14. If there was somebody you didn't like and you were told by your parents to be nice to him in school,  
What ought you to do? 0 Behave towards him exactly as you felt like doing.  
1 Take as little notice of him as you could.  
2 Be as friendly as you could.

What would you be most likely to do?

Behave towards him exactly as you felt like doing.  
Take as little notice of him as you could.  
Be as friendly as you could.

15. If a box of sweets was lying open on the table, and you wanted one very much,  
What ought you to do? 0 Take a sweet.  
1 Take a sweet and tell the owner afterwards.  
2 Do without.

What would you be most likely to do?

Take a sweet.  
Take a sweet and tell the owner afterwards.  
Do without.

16. If somebody gave you a cake of chocolate,  
What ought you to do? 0 Eat it at once.  
1 Share half of it with the rest of your family.  
2 Give most of it away and eat the rest yourself.

What would you be most likely to do?

Eat it at once.  
Share half of it with the rest of your family.  
Give most of it away and eat the rest yourself.

17. If your mother tells you to do something at a time when you want to play and then goes out herself,  
What ought you to do? 2 Do as you are told.  
0 Don't do it since she won't be there to see.  
1 Go and play and do what you were told to do afterwards if there is time.



What would you be most likely to do?

Do as you are told.  
Don't do it since she won't be there to see.  
Go and play and do what you were told to do afterwards if there is time.

18. If someone came to school whose clothes were different and much shabbier than the clothes of others,  
What ought you to do?    2 Be extra nice to her.  
                                 0 Make fun of her and get the others to laugh too.  
                                 1 Take no notice at all.

What would you be most likely to do?

Be extra nice to her.  
Make fun of her and get the others to laugh too.  
Take no notice at all.

19. When you have only a few pennies and you pass a blind beggar,  
What ought you to do?    2 Give them all to him.  
                                 0 Don't give him any, telling yourself it is wrong to beg.  
                                 1 Give him one and spend the rest.

What would you be most likely to do?

Give them all to him.  
Don't give him any, telling yourself it is wrong to beg.  
Give him one and spend the rest.

20. If you found a half-crown in the gutter and there was something you wanted but couldn't afford,  
What ought you to do?    2 Hand it over at the police station.  
                                 0 Buy the thing you wanted.  
                                 1 Give it to your parents and let them do what they think right.

What would you be most likely to do?

Hand it over at the police station.  
Buy the thing you wanted.  
Give it to your parents and let them do what they think right.

21. If you came out much lower than usual in an examination on a subject in which you usually did well, because you hadn't worked,  
What ought you to do?    0 Say you hadn't been feeling well and the paper hadn't been fair.  
                                 1 Refuse to talk about it at all.  
                                 2 Admit you hadn't worked enough.

What would you be most likely to do?

Say you hadn't been feeling well and the paper hadn't been fair.  
Refuse to talk about it at all.  
Admit you hadn't worked enough.





22. If you were playing with a crowd of children who swore a great deal,

What ought you to do? 0 Swear too.  
1 Not swear at all yourself.  
2 Tell them they shouldn't swear like that.

What would you be most likely to do?

Swear too.  
Not swear at all yourself.  
Tell them they shouldn't swear like that.

23. If you were hungry, had no money and were some distance away from home, and there was a stall with apples with no-one watching,

What ought you to do? 0 Take one and run away.  
1 Take one and come back next day to pay for it.  
2 Wait till the owner came back and ask if you might have one and pay next day.

What would you be most likely to do?

Take one and run away.  
Take one and come back next day to pay for it.  
Wait till the owner came back and ask if you might have one and pay next day.

24. Suppose the teacher asks at Christmas time for toys to give to a Children's hospital,  
Which ought you to give? 1 The toys you have grown too old for.

0 Toys which have been broken and are of no use to you.  
2 The toys which you like best yourself.

Which would you be most likely to give?

The toys you have grown too old for.  
Toys which have been broken and are of no use to you.  
The toys which you like best yourself.

25. If you had copied from your neighbour in an examination and the teacher accuses you of it afterwards,  
What ought you to do? 1 Flatly deny the whole thing.

0 Suggest that the other person copied from you.  
2 Admit having done it, although it means failing in the examination.

What would you be most likely to do?

Flatly deny the whole thing.  
Suggest that the other person copied from you.  
Admit having done it, although it means failing in the examination.



## A. PHYSICAL HEALTH.

No separate measures of this grouping of objectives were planned, but the diary information shed light on interest and participation in sports and other outdoor activities.

## B. TECHNICAL SKILLS.

This field was similarly unexplored directly though the listing of hobbies, together with the time allotted per week and the attendance at relevant evening classes or club activities gave some information.

## 10. FUNCTIONAL INFORMATION AND SKILLS.

Though the aspects of school work covered in this area do not take in the actual subjects of the secondary modern school curriculum, they do represent the groundwork on which most of the subject matter is based. Further, reports of recent swings back to the "essentials of learning" mean that interest in the 3 Rs is an important phase of modern school evaluation.

Writing itself was not examined - though written material was available from one of the tests - because the encouragement of different styles in different junior schools has created a problem as to what the modern school approach should be. It would have been possible to standardise scoring procedures on the basis of legibility but the difficulty lay in setting the standard. Teachers when asked about this expressed the opinion that they would find it hard not to let other factors influence them.

### 10.1 SPELLING

With so many criticisms directed at the leavers' ability to spell, the inclusion of a spelling test was almost automatic. The construction of such a measure is best founded on frequency of use rather than on common errors though, of course, the difficulty factor must also be allowed to function. As a basis several word lists (HORN 19



THORNDIKE 1952, WINGLAND 1947) were consulted to find words that are commonly used in writing by the general public and that present a level of difficulty appropriate to the fifteen year-old leaver from the modern school. After 75 likely words had been extracted, further screening with teacher consultations reduced these to the 26 used. The length of the test is in accord with the opinion that 25 words are sufficient for a general survey (GIBSON et al 1954, p.446). Horn's advice in his article in the Encyclopedia of Educational Research (1960) governed the form the measure took "Written tests are to be preferred to oral tests..... Recall tests are superior to and more difficult than recognition tests. The evidence indicates that the most valid and economical test is the modified sentence recall form in which the person giving the test pronounces each word, uses it in an oral sentence, and pronounces it again. The word is then written by the students." (p. 1259)

As with all the other measures the writer administered the test himself after making sure that his New Zealand accent would not affect the results. In this way the administration was standard throughout all the schools. Only with words beginning with (a) (accident, attention) was any difficulty experienced and here the sentence made the word quite clear.

The sentences, with the test words underlined, are presented below. The letters and numbers alongside refer to the frequency of occurrence according to the two most-recently prepared lists.

Thorndike	AA	=	100	times per million	(almost all in the first thousand words)
	A	=	50 - 100	" " "	(in second thousand words)
	47	=	47	" " "	



Rinsland      121 = First 100 of the first 500 of the first 1000  
                  125 = Fifth 100 of the first 500 of the first 1000  
                  1b1 = First 100 of the second 500 of the first 1000  
                  2a = First half of the second 1000.

TEST 7.

The words are given orally, then presented in a sentence and finally repeated alone.

The display was of <u>special</u> interest to him.	AA	2a
The <u>government</u> rules the country.	AA	1b4
He <u>received</u> a present on his birthday.	AA	1a4 (2a)
Club members should attend the team <u>practice</u> .	AA	2b
The underground trains are <u>electric</u> .	A	2b
Most people look forward to their <u>holidays</u> .	47	2b
Books can be borrowed from the <u>library</u> .	A	1b4
The stolen jewellery was very <u>valuable</u> .	A	3a
Water flows under the <u>bridge</u> .	1A	1b4
Fresh <u>vegetables</u> are good for you.	A	1b5 (4a)
Doctors fight <u>disease</u> .	A	1b5
There was an <u>accident</u> at the crossroads.	A	3a (-s, 2b)
This is <u>different</u> from that.	AA	1a3
The <u>building</u> was nine storeys high.	AA	1a5
The sunset on the water looked <u>beautiful</u> .	AA	1a3
The second month of the year is <u>February</u> .	A	3a
Is your journey really <u>necessary</u> ?	AA	2a
She thought the film was very <u>interesting</u> .	AA	1a3 (2a)
The two friends hated to be <u>separated</u> .	A	2b (3b)
His proposal of <u>marriage</u> was accepted.	A	3b
He was a close <u>friend</u> of the family.	AA	1a4
The party was a great <u>success</u> .	AA	2a
His grocery <u>business</u> was doing well.	AA	1a





The day after Tuesday is <u>Wednesday</u> .	2a	2b
The <u>Secretary</u> of the club sends out the notices.	A	2a
The soldier stood to <u>attention</u> .	AA	2a

Though other common and difficult words (e.g. occasion, A/C, department AA/26) were possible items, 'holidays' was included because it is used more frequently in England - where 'vacation' is less common. 'Wednesday' was selected rather than Saturday (A/1b3) because it was thought more difficult. Further because it is often seen or used during schooltime, it was argued that it might be better spelt than some easier words less usually seen. In fact it proved the easiest word of the list.

$r$  (corrected) = 0.868 ( $N = 71$ )

#### 10.3 ENGLISH USAGE.

Objectives in the vernacular include correct grammar and idiom accompanied by the standard use of punctuation and capitalisation. Test 16 was designed to measure some aspects of these. The first section made use of the unfinished word to allow a variety of response; the items containing in the main words commonly used incorrectly in speech. The marking employed was 1 for a correct answer, with a half mark given for a response that was obviously the right choice but contained an error in spelling.

Section 4 with its two alternatives technique follows a familiar form of English test items. A similar area to that of Section A is sampled, but here, because of the guessing factor, incorrect answers were marked minus; however scores of less than zero were counted as zero. Suggestions for items in the above sections were derived from the many available tests, teachers' class examinations and articles criticising standards (e.g. DIGGLE 1955).

The third section consisted of twelve sentences in



each of which at least two punctuation errors had been made. The errors were mainly: omissions which lent themselves to easy correction without the rewriting of the sentences. A half mark was awarded for each correction made and the same deducted for incorrect alterations, with the proviso that each item had a minimum mark of zero and a maximum of one.

Content validity is easier to establish with a test of this type than many of the formerly mentioned measures, but some further indication of validity is seen in correlation of 0.72 with the written letter test.

TEST 16.

Section A.

WRITE IN THE MISSING PART OF EACH UNFINISHED WORD.

1. They decided to do it th~~em~~.... selves.
2. The boy was tired and l~~ay~~ down on his bed to sleep.
3. He g~~ave~~ me more than the others were given.
4. That is the boy wh~~o~~ won.
5. I still have work to do though I d~~id~~ a lot yesterday.
6. Neither of them w~~as~~ going to give up easily.
7. He picked it up and tossed it thr~~ough~~ the window.
8. When the book disappeared I was certain someone had  
t~~aken~~ it.
9. She tightened the tent ropes that had worked l~~oose~~  
in the night.
10. All his friends were gone; to wh~~om~~ could he turn now?
11. That photo's a poor one. It d~~oesn't~~ look like her at all
12. The flowers in the vase a~~ren't~~ for sale, but you can  
by these.

Section B.

UNDERLINE THE WORD IN EACH PAIR THAT MAKES THE BETTER SENTENCE.

13. They went (their;there) as fast as possible.
14. He gave the other child a book (to;too).
15. The animal was startled by (it's;its) reflection in the  
still water.
16. There isn't (any;no) more.



17. We divided it (between;among) the five of us.
18. We'll do it again (as;like) we've done before.
19. The parade went (passed;past) very slowly.
20. It was alive and seemed some (kinds; kind of) animal.
21. This is the (more;most) beautiful of the pair.
22. He must (of;have) reached the house before me.
23. The puppy was a present to my brother and (me; I).
24. It isn't (any;no) good crying over spilt milk.

### Section C.

PUT THE CORRECT PUNCTUATION MARKS AND CAPITAL LETTERS IN THESE SENTENCES.

25. He leapt to his feet. He had gone quite white.
26. The hat cost Mrs. Adams more than she could afford.
27. What is the name of that farmer the red-headed one?
28. Turning to her, he said, "I agree with you."
29. The ball was a bumper, the batsman ducked and it went over his head.
30. We are going to Manchester in Joe's car.
31. Was the children's party a great success?
32. The gathering included teachers, pupils, parents and friends.
33. Please stop it quickly, it is hurting me.
34. The Thames flows under many London bridges before it reaches the sea.
35. The horn sounded, the hounds' tails wagged, and the hunt was underway.
36. "Stop," shouted the policeman to the fleeing figure.

---

$$r \text{ (corrected)} = 0.968 \quad (N = 71)$$

### 10.3 LETTER OF APPLICATION.

Further functional objectives in English include the ability to use correct form and content in social and business correspondence and the ability to write for the information of others. To these ends, and to obtain written expression in a form readily assessable, an advertisement from a local



TEST 17.

THE FOLLOWING ADVERTISEMENT IS IN A LOCAL NEWSPAPER.  
WRITE A LETTER, IN THE SPACE BELOW, APPLYING FOR A JOB  
WITH THIS FIRM.

"SCHOOL LEAVERS - The General Manufacturing Co. has  
vacancies for young people leaving school to fill clerical,  
skilled-trade, and factory hand positions. Five day week,  
Canteen, Sports Club. Apply in writing stating age,  
training, and educational attainments to Staff Manager,  
Jerome St., Lon., S1E.1."

---

The scoring was weighted in the following manner:

General: 12 for layout; 4 own address 4 business address  
2 opening 2 ending

12 for content; 3 type of job 3 age

3 attainments 3 experience

6 for sentence structure and spelling (marks  
deducted for each mistake with a  
minimum of zero).

6 for general impression of acceptability (based  
on comparison with sample letters rated  
0 to 6).

Specific: For the addresses and general layout, marks and  
half marks for such things as position, commas,  
form of date, capitals, inclusion of firm's name,  
etc., were allotted according to pre-arranged  
key. The various subsections were treated in a  
similar manner. In order to give the pupils  
every benefit an extra half in the test total  
was counted as a unit.

No check was made on the reliability of this measure.

10. 4 ARITHMETIC.

Following a familiar pattern in arithmetic test con-  
struction (SCHONELL 1952) a measure of arithmetical objectives  
was attempted through mechanical and problem calculations and  
questions about terms and relations. The size of each section





was governed by the desire to limit the test to a single cyclostyled sheet. With sections B and C of approximately equal importance but basically dependent on mechanical processes, the allocation of 16 items to Section A was convenient, expedient and probably justifiable. The content was based on textbook examples and teachers' schemes, syllabuses, and examinations. Several assisted with the mechanical questions making sure that they were simple to work out yet contained significant processes. The selection of section 3 was more arbitrary but it was desired to introduce some diagrammatical material along with simple facts and understandings. In the problem items the framing was as far as possible along functional lines with situations that were probable for the testees. Twenty of such items were reduced to ten after examination by teachers. Scoring was on the simple basis of one mark for each correct answer.

$$r \text{ (corrected)} = 0.886 \quad (N = 70)$$

# TEST 6.

## Section A

WORK THROUGH THE FOLLOWING EXAMPLES, PUTTING THE ANSWERS ON THE LINES PROVIDED.


ADD		SUBTRACT		MULTIPLY		DIVIDE		
(1)	$\begin{array}{r} 735 \\ + 264 \\ \hline 201 \\ \hline 610 \end{array}$	(5)	$\begin{array}{r} 107891 \\ - 87029 \\ \hline \end{array}$	(9)	$\begin{array}{r} 485 \\ \times 36 \\ \hline \end{array}$	(13)	$8 \overline{) 3840}$	
Ans.	<u>1810</u>	Ans.	<u>20862</u>	Ans.	<u>17460</u>	Ans.	<u>480</u>	
(2)	$\begin{array}{r} \text{£ } s \text{ } d \\ 3 \text{ } 7 \text{ } 4 \\ + 2 \text{ } 9 \text{ } 8 \\ \hline 1 \text{ } 8 \text{ } 3 \end{array}$	(6)	$\begin{array}{r} \text{£ } s \text{ } d \\ 6 \text{ } 8 \text{ } 3 \\ - 5 \text{ } 16 \text{ } 9 \\ \hline \end{array}$	(10)	$\begin{array}{r} \text{£ } s \text{ } d \\ 2 \text{ } 7 \text{ } 6 \\ \times 4 \\ \hline \end{array}$	(14)	$3 \overline{) \text{£ } 7 \text{ } / 2 \text{ } / 3}$	
Ans	<u>£7/5/3</u>	Ans	<u>£ /13/6</u>	Ans.	<u>£09/10/</u>	Ans.	<u>£2/7/5</u>	
(3)	$2\frac{1}{4} + 3\frac{1}{8}$	(7)	$3\frac{5}{6} - 2\frac{1}{3}$	(11)	$\frac{3}{8} \times \frac{2}{3}$	(15)	$\frac{2}{5} + \frac{1}{3}$	

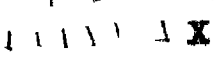


Ans.  $\frac{3}{5}$       Ans.  $1\frac{1}{2}$       Ans.  $\frac{1}{4}$       Ans.  $1\frac{1}{35}$   
 (4)  $2.5+4.16$     (8)  $3.04-1.5$     (12)  $3.6 \times 2.4$     (16)  $1.2 \overline{) 384}$   
 Ans. 6.66      Ans. 1.54      Ans. 8.64      Ans. 320

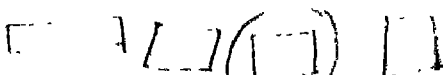
Section B


AFTER EACH OF THE FOLLOWING QUESTIONS ARE FOUR POSSIBLE ANSWERS. PUT A CIRCLE ROUND THE ANSWER THAT IS CORRECT.

(17) What fraction of the diagram is shaded?  $\frac{1}{16}$ ;  $\frac{1}{4}$ ;  $\frac{1}{5}$ ;  $\frac{1}{8}$  

(18) Which line is three fifths as long as X? a; (b); c; d. 

a ; b ; c ; d 

(19) Which of the following figures is a square? 

(20) Which of the following figures is a right angle? 

(21) The mixed number  $7\frac{4}{100}$  equals what decimal? 7.4; (7.04); .74; 704.0

(22) In making sweets Jane used three cups of white sugar and one cup of brown sugar. What percent of the sugar was brown?

$33\frac{1}{3}\%$ ; (25%); 50%; ~~66\frac{2}{3}\%~~

(23) Which number has a six in the thousand's place? 2605 Rs 8963 Rs (6021) Rs 7806.

(24) How many seconds are there in an hour? 30; 60; 360; (3600)

(25) How many ounces are there in a pound? 14; (16); 20; 24.

(26) How many quarts are there in a gallon? 2; (4); 6; 8.

Section C

WORK THROUGH THE FOLLOWING PROBLEMS, PUTTING THE ANSWERS ON THE LINES PROVIDED.

(27) Mary had £1/10/- to buy gifts for six people. Five of the gifts cost the following amounts,  $8/11$ ,  $4/5$ ,  $3/-$ ,  $7/3$  and  $1/6$ . How much could she spend on the last gift? Ans. 4/10

(28) The bill is  $16/6\frac{1}{2}$ . The customer offers a pound note, three sixpences and half-penny. How much change does he get? Ans. 5/-

(29) A coat priced £8 is reduced 10% in a sale. How much does it sell for? Ans. £7 - 4

(30) How much does John earn in a five-day week if he works at  $3/3$  an hour for eight hours a day? Ans. £8 - 10



- (31 ) How many yards of carpet 3ft. wide would be needed to cover a floor 16ft. wide by 20ft. long?

Ans. 23 $\frac{1}{3}$

- (32) What interest would you gain if you put £5 in a Savings Bank for a year at 2 $\frac{1}{2}$ %?

Ans. 2/6

- (33) How much do you save paying cash for a £14/-/- T.V. set, when the Hire-Purchase price is £2 deposit and 15/- a week for 60 weeks?

Ans. £3

- (34) The batsman made scores of 16, 23, 0, 74, 4, 23, 37, 101, and 18. What was his average score?

Ans. 33 or ~~32~~ 32 $\frac{8}{9}$

- (35) How many gallons of petrol would be needed for a 216 mile trip, if the car runs 24 miles on a gallon?

Ans. 9

- (36) The recipe included 4 cups of flour, 6 eggs, and 1 $\frac{1}{2}$  lb. of butter, and made enough for six persons. How much of these would be needed to make enough for just two persons?

Ans.  $\frac{2}{3}$  cups of flour; 2 eggs;  $\frac{1}{2}$  lb. of butter.

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#### 10. 5 GENERAL KNOWLEDGE.

The final test in this area was designed to measure general information about significant, important, or useful facts - a field in which selection material can markedly affect the results. Evaluation studies in the States do not include tests of this kind because the various aspects of general information are usually covered in specific, separate tests. It seemed however that there were items of information that might conceivably be part of the pupils' equipment when they leave school. The items chosen represent an attempt to list some of these. The reasons for selections are not constant from section to section (the items are grouped in fives) as the information may be important to the school teacher, may be necessary or useful in adult life, may be advantageous for breadth in thinking and conversation. The various sections are as follows: current news, heads of important governments, capitals of the English-speaking world.



sport, important events, religion, art, everyday science, business, places, miscellaneous (2). The answer to Q-7 changed during the testing but did not seem to affect the replies. Naturally scoring was adjusted.

r (corrected) = 0.803 (N = 73)

TEST 4.

READ EACH QUESTION CAREFULLY. WHEN YOU HAVE FOUND THE RIGHT ANSWER DRAW A LINE UNDER IT. AN EXAMPLE HAS BEEN DONE FOR YOU.

- a. Who is the present Queen of England.....  
Victoria, Elizabeth II, Mary, Anne.
1. The Mau Mau are fighting to make the whites leave.....  
Egypt, Borneo, Kenya, South Africa?
2. The main racial problem in the United States concerns....  
Indians, Japanese, Mexicans, Negroes?
3. There is a large French population in .....  
Australia, Pakistan, Canada, South Africa?
4. Many dark skinned people have been coming to live in  
Britain recently from.....  
South Africa, West Indies, Malaya, Pacific Islands.
5. The Republic of Indonesia previously belonged to.....  
France, Holland, United States, Britain?
6. The President of the United States is.....  
McCarthy, Truman, Roosevelt, Eisenhower?
7. The Prime Minister of Great Britain is.....  
Attlee, Churchill, Butler, Eden?
8. The leader of the Chinese Nationalists on Formosa is.....  
Chiang Kai-shek, Mao Tseung, Chou en Lai, Sun Yatsen?
9. The present accepted leader of the Russian Communists is.  
Stalin, Marx, Malenkov, Khrushchev?
10. The Prime Minister of India is.....  
Ghandi, Nehru, Mohammed Ali, Kotelewala?
11. The capital of Canada is.....  
Quebec, Ottawa, Vancouver, Montreal?
12. The capital of Australia is.....  
Sydney, Adelaide, Darwin, Canberra?
13. The capital of the United States is.....  
Washington, New York, Chicago, Hollywood?
14. The capital of South Africa is.....  
Cape Town, Durban, Johannesburg, Pretoria?
15. The capital of New Zealand is.....  
Auckland, Wellington, Christchurch, Dunedin?





16. Wimbledon is the international sports centre for.....  
Soccer, Cricket, Athletics, Tennis?
17. The one mile record is 3min. 53 secs. and is held by...  
Bannister, Chataway, Lundy, Kute?
18. The Ashes are played for between England and.....  
West Indies, Germany, Scotland, Australia?
19. The 1956 Olympic Games are to be held in.....  
Melbourne, Helsinki, Vancouver, Los Angeles
20. Pat Daythe is a famous.....  
sprinter, horse jumper, swimmer, table tennis  
player?
21. The man who climbed to the top of Mt. Everest was.....  
Hunt, Mallory, Shipton, Hillary?
22. The first man to reach the South Pole was.....  
Shackleton, Scott, Amundsen, Cates?
23. The jet engine was invented by.....  
Whittle, Brabazon, Mitchell, Duke?
24. The city of Japan destroyed by an atom bomb during the  
war was.....  
Tokyo, Hiroshima, Fujiyama, Hong Kong?
25. After a number of air disasters the type of aircraft  
recently subjected to exhaustive inquiry was.....  
Vampire, Meteor, Canberra, Comet?
26. The man who betrayed Jesus was.....  
Mark, John, Caesar, Judas?
27. When Christ said 'of such is the Kingdom of Heaven', He  
was referring to.....  
Saints, Martyrs, children, sinners.
28. What trade did Christ learn as a child.....  
pottery, fishing, preaching, carpenter?
29. Nearly all religions include a belief in.....  
one God, life after death, Jatan, Holy  
Communion?
30. The Old Testament was first written in.....  
Latin, Greek, English, Hebrew?
31. The Last Supper was painted by.....  
Michelangelo, Da Vinci, Picasso, Cezanne
32. Henry Moore is a famous English.....  
Photographer, Sculptor, author, actor?
33. Macbeth was written by.....  
Bernard Shaw, William Shakespeare,  
Charles Dickens, John Buchan?
34. The Nutcracker Suite was composed by.....  
Tchaikovsky, Handel, Beethoven,  
Vaughan Williams?



35. Mr. Micawber is an optimistic character in.....  
Pickwick Papers, David Copperfield,  
Oliver Twist, The Old Curiosity Shop?
36. D.D.T. is an.....  
insecticide, antiseptic, explosive,  
alcoholic disease?
37. Nyxamitosis is used to kill.....  
rats, mosquitoes, rabbits, midges?
38. The voltage of electricity operating in homes in England  
is usually between.....  
20-25 volts, 200-250 volts, 2,200-2,250  
volts, 22,000-25,000 volts?
39. The boiling point of water is.....  
100° F, 110° F, 312° F, 240° F?
40. The normal temperature of the human body is.....  
97.8° F, 98.4° F, 94.6° F, 100° F?
41. Money put into a business is called.....  
amount, credit, interest, capital?
42. The yearly sum a man pays to an insurance company is the  
premium, deposit, principal, commission?
43. Discount is a.....  
bill, loss, reduction, overcharge?
44. Rates paid by a person depend on.....  
his income tax, the money he earned, the  
size of his family, the value of his house?
45. Payment made for the use of borrowed money is called....  
tax, debt, rate per cent, interest?
46. In built up areas cars must not travel faster than.....  
(50, 40, 30, 20) miles per hour?
47. A woman comes of age and can vote at the age of.....  
16, 18, 21, 25?
48. King Edward the Eighth who gave up the throne to marry  
is now known as.....  
the Duke of Edinburgh, the Duke of Cornwall  
the Duke of Windsor, the Prince of Wales.
49. A Justice of the Peace is.....  
an objector of military service, a member  
of a religious organisation, a person who  
tries minor court cases, a judge who passes  
the death sentence?
50. A Jury consists of how many people.....  
two, three, seven, twelve?
51. The longest night comes in.....  
April, June, December, February?
52. The danger call of a ship in distress is.....  
C.O.D., R.S.V.P., S.O.S., H.M.S.?
53. The number of members of a body who by law must be  
present to do business is called a.....  
referendum, quorum, franchise, committee?



54. Leap year comes once every.....  
4, 6, 8, 10 years?
55. A person with the letters M.D. after his name is a.....  
Musical Director, holder of the Military  
Decoration, Doctor of Medicine, Minister  
for Defence?
56. Devon is what direction from Wales.....  
North, East, South, West?
57. The Shakespeare Memorial Theatre is at .....  
Dulwich Hamlet, Stratford-on-Avon,  
Thomas Embankment, Bath?
58. The island between England and Ireland is.....  
Scilly Island, Isle of Wight, Isle of Man,  
Jersey?
59. The county of Cork is in.....  
Northern Ireland, the Midlands, Scotland,  
Ireland?
60. Stonehenge was a meeting place for the.....  
Romans, Norman Barons, Druids, Knights of  
King Arthur?



VI.

ESTABLISHMENT OF STANDARDS.

".... the true objective of secondary education has not been reached. Little skill has been acquired in the difficult art of living in a community. Even the most sympathetic critic of existing secondary schools has to acknowledge that the proportion of failures, as judged by this instead of the usual examination standard, is still somewhat high."

(WHEELER 1945)

In the current criticisms of standards there exists a confusion in the use of terms. The levels of performance attached are usually the levels commonly held to be those of the average population. These then are estimates of the behavioural norms in the particular fields in question, not standards which indicate desired goals or objectives. It is obvious that while the norm or average performance is not necessarily one with which to be satisfied, this need not imply that standards are low. In fact, standards, according to the basis for judgments, may be well above norms, real or imagined.

Thus when the G.C.E. is appreciated for providing a fillip in the raising of standards in schools, the main inference is that levels of performance are better. Underlying this, however, the term 'standards' can be interpreted in its correct meaning since increasing the average performance will probably mean that the sights are raised with respect to the aims of pupils. Previous objectives, for more pupils than are engaged in preparation for examinations, may have to be revised when latent talent is aroused.

The setting of standards is as old as evaluation of educational outcomes in its widest sense. When education meant for intellectuals the retaining of factual knowledge and the writings of the great, and for the general population the development of produce and skills, appraisal, often ~~seeming~~ arbitrary today, could be based on precise and





definite outcomes. The oral and written testing under the system of payment by results in the latter half of the nineteenth century, where pass marks depended on inspectors' decisions, brought the application of standards into the developing system of public education. The reaction to this attempt to safeguard expenditure by pegging teachers' salaries to results achieved in yearly examinations, regardless of the abilities of the pupils, undoubtedly affected attitudes towards standards. It is probable that it caused the Herwood Committee to see the modern schools as free from examinations, while lauding the value of such measures in the grammar schools.

Be that as it may, appreciation of the implications of varied capacities changed many teachers' ideas about standards. This marked the beginning of the concept of differential goals which grew up with the interest of psychologists in individual differences. It is now generally recognised that ability must be taken into consideration in evaluating a pupil's endeavours. Not that this always finds its way into practice. With a school's reputation founded on its leavers, the grammar school owes part of its prestige to the comparison of its 16 to 18 year-old leavers with the 15 year-olds from secondary moderns. Further, a prevalent opinion about examinations in modern schools stems from an inability to understand that acceptable standards may vary for different individuals or groups: "Most children in secondary modern schools are there because of a noticeable inability to do well in examinations; is it wise to terminate their secondary education with yet another proof of their deficiencies?" (NEAL 1964). Such a view shows a very limited and pessimistic outlook on both norms and standards pertaining to 70-80% of the future population.

The whole problem is being thoroughly aired in the United States, where the first of six reports raised for discussion at the recent White House Conference on Education



was "What should the schools accomplish?" Basic to this are questions relating to the schools' responsibilities with regard to different ability groups and the designing of a curriculum which develops skills in the 3 Rs, while at the same time encompassing social objectives. The E.T.S. is to assist in the establishment of objectives and of standards. The value judgments will be a priori, grounded as far as possible on empirical evidence from various tests of abilities and attainments at different levels. It is hoped that research will assist further in showing the means for greater and better achievement by improved methods. "There is little question", says Chauncey (1955) "but that our education, formal and informal, at present is far from optimum in developing potentials."

Educational needs reflect the conditions of the time. The requirements of present day society call for greater efficiency in education than ever before. The school, though indispensable, is not by any means necessarily the most powerful educative force in the lives of its pupils, but, because it is increasingly incorporating many of the other factors and because it is the one over which we have most control, it has become the focal point of desires for better and more effective living.

The needs of the individual and the needs of society must go hand in hand. The desire to educate each individual to the peak of his capacity must be set against the wish of the individual to reach this level. Nevertheless there would appear to be a minimum of performance which could reasonably be expected of most persons of a community. "After all there must be a level of literacy at which all secondary modern schools should aim .... there is a secondary standard of reading, writing and summing which the average child should



reach."<sup>1</sup> Are we to believe, as is suggested here, that performance is unsatisfactory because standards are not high enough? Is Lowell's statement about society, "Not failure but low aim is the crime"<sup>2</sup> applicable to the secondary modern school in particular? Or do standards exist that bear little relation to actual performance?

The hesitancy about attempting to set standards has in the past depended on the lack of a common basis in grading, or the need for a point of origin. "Teachers disagree upon a definition of an appropriate level of achievement" states Ramseyer (1955).

Writer of recent evaluation texts do not share this view, feeling that if the objectives are specific enough it is possible to set satisfactory standards. In this respect the optimum growth with respect to an objective is thought a more significant expectation than the maximum, as the latter ignores the relationship of the given objective to other goals. The significant standard is the "best" gain that can be expected under the circumstances (DRESSSEL 1950).

In the present enquiry it was decided to attempt to establish minimum levels of expected performance on each test. The fact that, though the evaluators assessed different groups of tests, each received a list of all the tests used, meant that other objectives were constantly in their minds. This allowed a measure of control in setting the expected level on any one test. Because they were estimating performance in very specific singular situations - the test items - much of the difficulty involved in defining a level of achievement was overcome. That teachers could agree as to what the majority of children could reasonably be expected to attain was suggested by teachers' reports<sup>3</sup> and by the statements of

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1. Editorial, T.E.S., 14.7.55.

2. Quoted by Lester Smith (1955).



evaluation experts such as Symonds (1933) who advocated the use of several experts to estimate standards on tests.

The assessors consisted of 43 persons intimately connected with teaching: 26 teachers and 4 heads from modern schools, 6 teachers with general secondary experience, 3 heads and 1 assistant from junior schools, 1 infant school head mistress, 1 district inspector, and 1 senior lecturer from the Teachers' Centre of the Institute of Education. The assessors were contacted through the Teachers' Centre Research Group, staffs of interested schools visited during the preliminary survey, and individual teachers known to the writer.

Without any statistical analysis it seemed clear from the replies received that the assessments of those engaged in teaching other than at the secondary modern level differed in no demonstrable way from the standards laid down by modern school staffs. The levels set on various tests by any one individual seldom showed consistent variation and direction from the average assessment. It must also be noted that in cases where the tests were evaluated in the writer's presence - with presumably greater opportunity for clarification of the task - there appeared no differences when compared with tests assessed mainly with the help of the instruction sheet (see below) and a short verbal explanation, often at second hand.

If results supported the hypothesis that a few experts can give as valuable a judgment as that provided by a large number of laymen, confirmation would be provided by a high degree of agreement among the experts. A set of eight assessors for each test was chosen as a minimum 'quorum' - though possibly fewer could have been used. In practice, the eight assessments usually represented more than eight persons because, though results were returned as if from one individual, it was known that several staff members often collaborated with the individual and this was encouraged. Naturally where





this was possible and indeed asked for, only one copy of each test was distributed. In some tests a further 4 or 8 evaluations were obtained as a rough check on the initial levels utilised. In no case did these appreciably alter the results.

#### PROCEDURE.

Each assessor was supplied with an instruction sheet and the set of tests he was asked to evaluate. In defining the level of minimum performance as that expected of all pupils, "allowing that some children for various reasons of intellect or temperament will be below these levels on leaving", the writer had in mind some 90% of the secondary modern population.<sup>4</sup> The teachers' interpretation of this seemed similar. The qualification of the definition in terms of a 'satisfactory minimum from reasonable products of our secondary education system; citizens who have the necessary attainments and qualities for satisfactory social and vocational adjustment' was broad enough to allow adequate personal interpretation; it being felt that if reasonable agreement could be attained on such a non-specific basis the results would augur well for more precise evaluation, and the underlying hypothesis would be adequately substantiated. In fact, the conclusions justified the approach and in doing so made the results more worthwhile.

#### EVALUATION OF MINIMUM STANDARD LEVELS

The accompanying tests have been given to large samples of boys and girls about fifteen years of age in their last term at Secondary modern Schools. The tests were untimed and all instructions and items were read aloud by the tester as the pupils worked on their individual copies. This minimised reading difficulties.

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4. This implies, with respect to those tests dependent to some extent on intelligence, the performance of a 15 year-old with a mental age of about 11-12 years. (see Tanner 1941).



In order to appreciate more fully the significance of the scores obtained it is necessary to establish for each test a minimum standard that represents the level that should be expected of the pupils (allowing that some children for various reasons of intellect and temperament will be below these levels on leaving). In estimating for each test you should keep in mind the standard you think would be a satisfactory minimum from reasonable products of our secondary education system; citizens who have the necessary attainments and qualities for satisfactory social and vocational adjustment.

While experience with certain pupils of this age may allow you to estimate how well you think these pupils would do, please ignore this and simply evaluate the items as to what you think they should be able to do.

There are 19 tests, but each evaluator is asked to do only some of these. The tests you are requested to evaluate are circled in the list given below. The task involves your aims and hopes for pupils leaving Secondary Modern Schools. What is the minimum level you think they should reach?

# MARKING SCHEME AND TEST IDENTIFICATION

Possible Total

1.	<u>SOCIAL BEHAVIOUR:</u>	2 for best response, 1 for compromise.	
		"Ought to do"	50
		"Likely to do"	50
2.	<u>GOODWORKMANSHIP</u> <u>ATTITUDE:</u>	Ratings of 0 to 3. Reversed items marked 0	45
3.	<u>PREJUDICE:</u>	1 for +rating (lack of prejudice) -1 for - rating. Range -20 to 20	
4.	<u>GENERAL</u> <u>KNOWLEDGE:</u>	1 for each correct answer.	60
5.	<u>BEST REASONS:</u>	1 for each correct answer.	20
6.	<u>ARITHMETIC:</u>	1 for each correct answer.	36
7.	<u>SPELLING:</u>	1 for each word correctly spelt.	26
8A.	<u>MORAL JUDGMENT</u> <u>RANKING:</u>	Score is the sum of the difference in ranking from an accepted order.	0
8B.	<u>MORAL JUDGMENT</u> <u>RATING:</u>	Ratings of 0, 2, 4, 6, or 0, 1, 2, 4, (x items) Reversed item marked R.	0
9.	<u>DESIGN</u> <u>DISCRIMINATION:</u>	1 for correct ranking of best design. 1 for correct ranking of worst design.	40
10.	<u>ATTITUDE TO</u> <u>ART:</u>	score is mean of ticked statements. Draw a line at the level you select.	10.2



	Possible To.
11. <u>LIBRARY &amp; BOOK KNOWLEDGE:</u>	1 for each correct answer. 24
12. <u>COMPREHENSION OF TABLES:</u>	1 for each correct answer. 10
13. <u>TEST IN USING AN INDEX:</u>	1 for the stop before, 1 for the stop after. 16
14. <u>COMPREHENSION OF INFORMATION:</u>	1 for each correct answer. 12
15. <u>MAP COMPREHENSION:</u>	1 for each correct answer 10
16. <u>ENGLISH USAGE:</u>	A. 1 for each correct completion, $\frac{1}{2}$ if misspelt. B. 1 for correct choice, 1 for incorrect choice (Sub-test minimum of 0). C. 1 for correct punctuation, $\frac{1}{2}$ if partially correct $-\frac{1}{2}$ for incorrect punctuation. (Item minimum of 0) 12 for each of the sections. 36
17. <u>LETTER OF APPLICATION:</u>	12 for layout, 12 for content, 6 for grammar and spelling, 6 for general impression. Place crosses beside those sample letters you regard as unsatisfactory. 36
18. <u>EMOTIONAL MATURITY:</u>	(Mature choices underlined) 1 for each tick against a mature choice. -1 for each tick against an immature choice. Range - 40 to 40
19. <u>SOCIAL ADJUSTMENT:</u>	Sections 1A, 3A, 4A, 2B & 4B only. 1 for each correct choice. 12 for each of the sections. 60

The evaluators received the cyclestyled test sheets correctly keyed, with Green Line Coach Guides for tests 12, 13, and 14, the McAdory plates for 9, and the list of spelling words in their sentences for 7. The greatest difficulty was experienced in test 19 (Social Adjustment) where for a number of items covering home conditions and the like it was not easy to determine what responses should be expected. This was overcome by allowing an estimate to be made for the subtests taking into account all the items but not necessarily marking each separately. The other tests occasioned few problems.



for the assessors.

In test 10 (Attitude to Education) the items were presented in descending order of attitude with instructions to 'draw a line under the statement you think marks off the lower limits of a satisfactory attitude to education that you might expect of a leaver'.

With Test 17 (Letter) quite a different procedure had to be adopted. The marks corresponding to all the deciles and the 5th and 95th percentiles were calculated and found to be 7, 9, 12, 13, 14, 16, 17, 19, 20, 22, 25/36. Sample letters at each of these levels were then selected and grouped in random order. These appear below.

TEST 17. (Letter Samples)

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(1) 88, Rossington Ave,  
Boreham Wood,  
Herts.  
15.3.55

Dear Sir

I would like to fill up one of those vacancies in your factory my age is 15 and 6 mths never had any training my education is standard Secondary Modern School

Yours faithfully  
Eric Green

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(2) 25, Wigram Square,  
Walthamstow,  
E.17.  
12th July 1955.

The General Manufacturing Co.,  
Jerome St.,  
London, S.E.1.

Dear Sir,

I am applying for a job at your works as a engineer. I am 14 years of age and nearly fifteen. I have taken the Pre-National and R.S.A. examinations and passed the Pre-National but do not know the results of the R.S.A. I have taken Mathematics, Science and Technical Drawing at evening classes for the passed year.

Yours sincerely,  
Malcolm Douglass.

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(3)

Courthouse  
The Green  
Curry Rivel  
nr Langport,  
Somerset  
23.5.55

Dear Sir's

I have seen your advertisement and see that you have a vacancies I would like to apply for a skilled trade as a engineering I have had a good lot of training in a garage near our home. I am quite good at English Etc. and my age is 15½

Yours faithfully  
W. Gsmnd

(4)

16, Culberry road  
Burnt Oak  
Edgware  
Middx  
15.2.55.

Dear Sir or Madam

I am applying for employment in skilled trade. I am 14 year 11 month. I am willing to take almost any skilled engineering trade. To suit your convenience. I have a little experience on Motor Car engines.

Yours faithfully,  
John Hood.

(5)

93, Leaside Crescent,  
Golders Green,  
London, N.W.11.  
15th March 1955.

Dear Sir,

I see that you are advertising for school leavers for clerical work, in the local paper. I would like to work as a junior shorthand-typist. I have been attending Goldbeaters school, Burnt Oak, for two years learning shorthand and typing. I am fourteen years of age and will be leaving school 21st March 1955. I would like to take this job and hoping I will please you

Yours faithfully  
Miss J. Edwards.

(6)

Byron Chappin  
149 Fordwych Road  
Cricklewood  
London  
N.W.2.  
3.5.55.

Dear Sir

In the daily paper there was an advertisement you put in concerning the General Manufacturing Co., it said people leaving school apply for the job. So, I have written to you, and I am hoping you will not refuse.

Yours Faithfully  
Byron Chappin.



(7)

Dear Sir or Madam,

I am writing to a pily for a job in one of your shops. I am quite good at figers, and would like to get the job.

I have a grait interest for it for a long time, you can contat me at my home,

Yours Faithfaley  
Rcse Herwood,

P.S. 7, Faifax Road  
Hrapstead  
London  
N.W.6.

(8)

Staff Manager,  
Jerome St.,  
London,  
S.E.1.  
Dear Sir,

3 Hill View,  
Hambridge,  
Langport,  
Somerset.

I would like to apply for the job you advertised in "Evening Post" on May 20th. I would like the clerical job if I could, I am 15 and 3 months I have been going to nigh classes learning to use the typewriter and I was awarded the english prize last year at school. I have loerned a bit of shorthand too in my spare time.

Yours faithfully,  
Stanley Male.

(9)

To Staff Manager,  
Jerome St., Lon., S.E.1."

40, Ruby Road,  
Walthamstow,  
London, E.17.  
12, July, 1955.

Dear, Sir,

I am apply to you factor for a job. I can use a mersich, and would like to be a skirt mesicher.

Yours failfull  
Miss I Stokes

(10)

200 Levita House  
Ossulston St  
Euston Rd.  
London N.W.1.,.

Dear Sir

I have read that you have vacancies for school leavers, at the General Manufacturing Co. I would like to have a job in the clerical department. My age is 15 and I have had English training for four years. Also arithmetic, I am good at most subjects. But I have never been in this line before and I willing to learn.

Yours Friendly  
A.M. Bernside



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(11)

Albert Hunt.  
49 Cardington St.,  
London, N.W.1.

Dear Sir,

In reply to your advert., I am forwarding this letter. I am 15 y'rs old. I am of excellent report regarding Metalwork. As well as being very able with my hands I am an excellent scholar, and I have been trained with special regard to technicalities. Could you please arrange an interview for me, anytime you like

Yours sincerely  
A.H. Hunt.

To.  
Staff Manager,  
Jerome St.,  
London, S.E.1.

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The evaluators were not informed of either the marks nor the system of selection, but merely told that this was a group of letters which they were to assess by placing crosses against those below standard. They were, however, told the method of marking, and the weighting of the significant aspects of such a letter as opposed to other forms of written expression was emphasised.

#### RESULTS.

The results are to be found in the following table.



**TABLE 6.1**

Test	Evaluations				Range	Q <sub>0</sub>	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	Mid. 50%		
	1	2	3	4								
1.A. Social Behaviour (Ought to do)	47	45	44	43	50	2.70	1.75	.649	41	43	44.5	3.5
1B Social Behaviour	34	34	33	33	50	6.03	.5	.682	32.5	33	33.5	1
2 Good Workmanship	39	38	37	37	45	3.29	1	.304	36	36.5	36	2
3 Proficiency (Attitude) +3-	13	13	10	10	40	3.2	2	.625	7	9	11	4
4 General Knowledge	44	42	40	40	60	5.42	2.75	.508	35.5	38.5	41	5.5
5 Reasoning	18	18	17	16	20	1.94	1.5	.775	14.5	15.5	17.5	3
6 Arithmetic	32	31	30	29	35	5.35	1.5	.280	27.5	28.5	30.5	3
7. Spelling	26	26	26	25	26	5.85	2.25	.385	21.5	24.5	26	4.5
8A. Moral Judgment (Ranking)	12	12	8	8	36	2.93	1.5	.513	10	8	7	3
8B. Moral Judgment (Rating)	9	6	5	5	64	1.357	.75	.210	5.5	5	4	1.5









The question arising from these assessments is how far are we justified in accepting the median value of the judgments on each test as a reliable measure of the expected standard.

A glance at the evaluation for each test shows a surprising degree of agreement in most cases. This, however, must at once be qualified by the comparison of the range in marks of the middle 50% of the judgments (Column 8)<sup>5</sup> with the possible range of each test (Column 1). This highlights tests 13, 2, 6, 8A, 8B, 9 and 16 as showing promise but there is no reliable basis for comparisons between tests. While there is some justification for assuming the assessments of 16 and 9 show a highly satisfactory coherence, it is difficult to decide just where the other assessments begin to be unsatisfactory. To do this at all requires a rating on a system of uniform scaling.

A simple method would appear to be to establish some relationship between the range and the  $Q_6$  as indicating reliable agreement among the assessments and then to match the relationships for other tests against this. Fortunately this can be done using test 17 for which it is possible to calculate the significance of the variation between evaluations. By analysis of variance this can be demonstrated not to be significant, indicating acceptable coherence of the assessments and hence justification of the use of an average measure as indicating the expected minimum level.

#### ANALYSIS OF TEST 17 EVALUATION.

12 Assessors			11 test papers.		
Source of variations	df	SS	Mean Sq.	F	Sign.
Between assessors	11	1.18	0.107	1.32	-
Among pupils	10	22.91	2.290	29.27	.61
Interaction	110	8.91	0.081		
Total	131	33.00			

5. As assessed from the quartile deviation in Columns 6 and 7.

6. Semi interquartile range for assessments.



This provides an acceptable standard and as 2 Qe represents 2 marks in a total range of 36, tests with a ratio better than 1:18 would seem acceptable. On these grounds 1B, 2, 8B, and 9 satisfy the requirements. The same type of analysis of variance could be applied to all the tests utilising the numbers of pupils reaching the assessments of the different evaluations but because of the large numbers the F-ratio for assessors would inevitably be enormous and of limited value.

In any event we are still none the wiser about the majority of the tests, for the lower limits of acceptability have not been found. In fact we must doubt the acceptance of the above mentioned tests because in the analysis the significant points for comparison were the deviations of the assessors and the pupils, and the test range - the functional range of the results did not enter into the calculation. What is more important then, is to relate the variation of the evaluations to the probable<sup>7</sup> rather than the possible range, or to some related statistic of deviation.

An analysis of the quartile deviations of both the assessors and of the total scores of the pupils for each test permits a ratio of Qe (evaluators) to Qp (pupils) to be calculated. Marking according to this ratio (Column 4) again indicates 1B, 2, 8B, and 9 as satisfactory with 6 now also included. The ranking appears to give a reasonable order in the tests.

Study of the P.E. of the median percentages<sup>8</sup> also provides a ranked list, but besides giving a correlation of only 0.50 with the previous order (seemingly the best so far) a rank correlation of 0.73 is found with the percentage off by the median - indicating that the nearer the level 1

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7. The actual range of the test scores of all the pupils would be an estimate of this.



the upper limits of the pupils' range, the smaller the P.E. and hence the more acceptable the test appears.

However none of the above methods meets the basic requirement of establishing an adequate scale demonstrating various levels of acceptance. Nevertheless the attempts clarified the problem and provided judgments on certain of the tests. From such approaches the following method was finally evolved.

The task is essentially to estimate the reliability of the assessments with a view to justifying the use of the median of these assessments as a valid criterion against which to compare the performance of the pupils. If then it is possible to calculate an index which can be related to reliability coefficients of correlation on the one hand and to the assessments on the other, degrees of acceptance can be based on a scale of varying values of  $r$  - a measure about which a good deal is known.

It is known that the P.E. of a testee's score on any test is given by

$$P.E. = .6745 \frac{1}{1 - r}$$

where  $r$  is the reliability coefficient of a test. A highly satisfactory test such as the 1937 Stanford-Binet is reported as giving reliabilities between .90 and .97 (McNemar 1943), with reliability at different levels of ability varying between .90 and .98; about .92 for intelligence near I.Q. 100 (FREEMAN 1950). Using .92 as the reliability, the index for the Binet test would be 2.86 when the Standard Deviation is 15, or 0.191 in terms of sigma scores. Now supposing we asked how many pupils obtained I.Q.s below a certain standard, say  $82 \pm 1 \times P.E.$  : 82 represents a sigma score of -1.20, and the percentage scoring below  $-1.20 + 0.191$  and  $-1.20 - 0.191$ , are 15.6% and 9.9% respectively from normal curve tables.

The argument can then be reversed, and if it is found on any test that 15.6% and 9.9% of the testees reach the





standard indicated by the upper and lower quantiles of assessors, we can say that this corresponds to a reliability coefficient of assessment of +0.92, and to a sigma score index of 0.191.

Remembering that Kelley has stated a reliability of 0.50 may be satisfactory in group testing, the following table interprets the indexes by reasonable group standards.

TABLE 7.2

<u>r</u>	<u>Index</u>	<u>P.E. With S.D. of 15</u>	<u>Comment</u>
.85+	.26 or less	3.9 or less	Good
.70 +	.27 - .37	4.0 - 5.5	Satisfactory
.60 +	.38 - .43	5.6 - 6.5	Acceptable
.50 +	.44 - .48	6.6 - 7.2	Fair
Less than .50	.48+	7.3 - 10+	Poor

The tests as judged according to the reliability that can be placed on the standard set by teachers are set out below.

TABLE 6.2

COHERENCE OF THE EVALUATIONS OF TEST STANDARDS.

Pages reaching stds set by evaluators, & S.D. values.

<u>Test</u>	<u>Q1</u>	<u>Med</u>	<u>Q3</u>	<u>±Q1-Q3</u>	<u>Comment</u>
1. Ought Social Behaviour	73.54 .63	56.37 .16	41.11 - .22	16.22 .425	Acceptable
2. Likely Social Behaviour	18.57 - .89	16.01 -1.0	14.63 -1.06	1.97 .085	Good
3 Goodwork-manship	15.8 -1.0	13.37 -1.12	6.09 -1.55	4.86 .275	Satisfactory
3 Prejudice	12.59 -1.15	5.52 -1.6	2.16 -2.04	5.22 .445	Fair
4. General Knowledge	41.72 - .21	27.07 - .61	15.96 -1.0	17.88 .395	Acceptable
5. Reasoning	35.51 - .27	22.92 - .74	5.17 -1.64	15.17 .635	Poor
6. Arithmetic	12.14 - .2	15.65 - .27	9.85 -1.21	4.45 .205	Good



Test	Q1	Medn	Q3	1Q1-Q3	Comment
7.	26.12	7.92	2.47	11.83	Poor (Satisfactory)
	-.64	-1.42	-1.97	.665	
8a. Ranking	2.78	1.35	0.79	1.0	Good (acceptable)
Moral Judgment	-1.91	-2.21	-2.41	.250	
8b. Rating	39.98	36.04	28.45	5.77	Good
Moral Judgment	-.26	-.36	-.57	.155	
9.	15.71	12.38	12.38	1.67	Good
Design	-1.1	-1.16	-1.16	.030	
10.	39.55	15.26	10.39	9.58	Poor
Education	-.27	-1.03	-1.26	.495	
11.	43.67	31.22	21.04	11.32	Satisfactory
Library	-.16	-.49	-.81	.317	
12.	23.74	17.12	5.43	9.13	Fair
Tables	-.72	-.95	-1.6	.440	
13.	62.79	39.04	4.34	29.23	Poor
Index	.31	-.28	-1.71	1.010	
14.	37.81	19.13	5.13	16.34	Poor (fair)
Information	-.31	-.87	-1.63	.660	
15.	58.09	36.22	26.54	15.78	Acceptable
Map	.2	-.35	-.63	.415	
16.	22.01	13.88	8.13	6.94	Satisfactory
English	-.77	-1.09	-1.39	.310	
17.	58.37	47.57	33.48	12.46	Satisfactory
Letter	.21	-.06	-.43	.320	
18.	5.91	3.24	0.93	2.59	Acceptable (peer)
Emotional Maturity	-1.56	-1.85	-2.35	.395	
19.	78.83	61.87	43.92	17.46	Fair
Social Adjustment	.8	.3	-.15	.475	

The rank order according to this index gives a correlation of 0.772 with Q-ratio ranking but almost all the variation is contributed by tests 7 and 18, and to a lesser extent 8a and 14. Reallocating these tests to places corresponding to the Q-ratio list yet relative to the comments on neighbouring tests as based on the index method, 7 would become satisfactory 18 poor and 8a acceptable. These comments appear in brackets in table 7.8. Consideration of the actual assessments gives



applicable to these tests since they appear to be unduly affected in the calculation of the index by the extremely small percentages reaching Qe3 : 2.47%, 0.93%, and 0.79% respectively. In test 14 this difficulty does not apply and while matched against the Q-ratio ranking, this test borders on acceptable, it is perhaps best described as fair.

The relationship of these conclusions about the value of the teachers' judgments of standards to the actual results of the pupils on the test will be discussed in Chapter IX. The percentages attaining the estimate of the expected minimum level will then be commented on more fully.



VII.

DESCRIPTION OF THE SAMPLE.

"You have to marry when you are 19 at latest or you are on the shelf. You isn't have much fun once you are married and have children. Now you can't start work till you are 15, and it takes a year to get some clothes together; that only leaves you three years to live." - 14 years old girl.

(JORDAN & FISHER 1955)

The information to be found in the pages that follow affords some qualitative evaluation of a sample of secondary modern pupils, besides clarifying the background of the youngsters to allow adequate interpretation of the test results for the different groups.

The children who made up the sample came mainly from mixed schools<sup>1</sup> in four fairly distinct residential areas, each of which, incidentally, represented a different Education Authority. The attempt to obtain about 100 pupils in each area, allowing groups of approximately 50 when separated into boys and girls, was not entirely successful because, although the total numbers were satisfactory certain pupils missed one test or other during the week of evaluation.

Nearly all children completed the questionnaire, but only 57% handed in the diary with usable information. This paucity of return was due to several factors. As it was necessary for the weekend section to be filled in after the evaluation week the diary could not be ready until the next Monday - when the tester was usually in another school. Sometimes it was possible to return and collect the booklets personally - on other occasions use had to be made of a member of staff trusted implicitly by the pupils, or of a

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1. In mixed schools, & boys' school





reliable prefect within the group. Schools trips, holidays and absences during the week following added to the normal wastage expected with such approaches. The diary material must, therefore, to that extent be suspect, though any bias in the return would probably tend to a more rather than less favourable picture.

<u>SAMPLE.</u>				
SCHOOL	B	G	TOTAL	DIARIES
<b>S. (SUBURBAN) Middlesex</b>				
G	45	33	78	45
Su	22	20	42	10
B	19	24	43	25
	86	77	163	80
<b>I. (LIGHT INDUSTRIAL) Essex.</b>				
M	19	12	31	17
CE	22	13	35	26
Ho	22	23	45	17
	63	48	111	60
<b>R. (RURAL) Somerset.</b>				
W.	26	28	54	26
ME	21	25	46	26
	47	53	100	52
<b>U. (URBAN) L.c.c.</b>				
SHC	41		41	35
Is		29	29	19
H	13	15	28	24
	54	44	98	77
			473	269

Because of the amount and complexity of information to be presented, discussion of items is limited to as brief a comment as possible. The questionnaire is dealt with first, followed by the diary material, and a short summary. Each question is stated as it was phrased for the pupils, the answers are outlined in tabular form where convenient, and the results analysed for area and sex differences. A summary is then made of the findings.



Questionnaire Material.

1. Do you intend to stay at school next year?

	S.	I.	R.	U.
N/Yes'	26	3	1	19

Approximately 0.5% of Total Sample intend to complete a fifth year.

Comments: Nearly all the pupils in the sample are leaving at the completion of the term, save a few in one suburban school who hope to sit for external examinations, and a few urban pupils who have to stay on another term but will leave when 15.

2. ARE YOU GOING ON TO FULLTIME EDUCATION WHEN YOU LEAVE?  
YES/NO

<u>AREA DIFFERENCES.</u>	S.	I.	R.	U.
Percentage "Yes"	42	35	28	27
N. "Yes"	64	35	27	25
Analysis: P = .341	X <sup>2</sup> = 7.718 Borders on significance at .05 level			

<u>SEX DIFFERENCE</u>	Girls	Boys
Percentage "Yes"	25	42
Analysis: Actual D = 17.9 P = 34.14 sdd% = 4.486		
t = 3.996 Sign. at .01		

IF YOU ARE, WHAT WILL IT BE?  
(e.g. Apprenticeship, Commercial, Technical, Hospital, etc.)

	S.	I.	R.	U.
Apprenticeship	31	48	12	21
Commercial training	6	4	4	3
Training (nursing, telephony etc.)	8	4	6	3
Technical work (art)	1	1	1	1

Comment: As might be expected more boys intend to benefit from further education of some kind, though in the main this is in the field of apprenticeship. There is little variation among the areas, but there is a somewhat greater tendency in S than in either R or U.

3/4 IF YOU START WORK NEXT YEAR, WHAT JOBS HAVE YOU IN MIND? PUT YOUR FIRST CHOICE AS 1.

1.....2.....3.....

IF YOU WERE PREVIOUSLY TRAINED AND QUALIFIED, AND HAD



THAT THERE WAS NOTHING TO STOP YOU, WHAT WOULD YOU  
 MOST LIKE TO DO FOR A LIVING WHEN YOU LEAVE SCHOOL?

1.....2.....3.....

Manipulation and interpretation of the answers given to these queries involved some scaling of the jobs mentioned. In effecting this the social rating used for Census purposes was employed. This rating had been found suitable for grouping fathers' occupations, and use of the same method afforded means of comparison. Consideration of other scales indicated that the nine-point rating of the Scottish Survey (SCOTTISH COUNCIL 1953) provided the greatest spread but this required additional information, such as the exact type of work, the method of salary payment, the number of employees, etc. Further, the functioning of the Scottish scale in the present circumstances was restricted to about six operating sections and the placing of farmers and agricultural workers at the bottom of the list did not lend itself to valid comparison of average levels.

The census scale<sup>2</sup> used is based on general standing within the community; economic circumstances not being taken into account except insofar as they are reflected in the occupational classification. The five groups are described as: 1. Professional 2. Intermediate 3. Skilled 4. Partly skilled 5. Unskilled.

In the following tables, results for questions 3 and 4 are presented together for comparison. The actual occupations mentioned are included in the appendix.

Mean job choice scale according to census social rating.

	<u>S.</u>	<u>I.</u>	<u>R.</u>	<u>U.</u>	<u>ALL</u>
GIRLS Q <sup>3</sup> (N)	3.24 (63)	3.18 (46)	3.31 (47)	3.02 (40)	3.20 (196)
Q4	2.78 (56)	2.53 (42)	2.72 (30)	2.79 (24)	2.078 (152)

2. Classification of Occupations 1950, 1951



		<u>I.</u>	<u>S.</u>	<u>U.</u>	<u>ALL</u>
BOYS	Q3	3.09 (80)	3.06 (62)	3.34 (46)	3.26 (263)
	Q4	2.87 (71)	2.79 (53)	2.88 (37)	2.86 (202)

Comments: The choice of job is by and large commonsense;

Nearly all the occupations are within the capabilities of the pupils as far as one can gather. Certain of them - governess, model, veterinary surgeon, missionary, jeweller - depend on additional qualifications and opportunities but the overall pattern is one of a very realistic approach. This choice of suitable and likely jobs agrees with the recent findings of Hood (1951), but shows a marked change from the researches among similar groups in earlier years. Wall (1943) states that Fryer in 1933 and 1937 found only a slight relationship between vocational ambitions and potentiality and between interest and efficiency. Freeston (1946) also reports a conflict of incompatible aims with ability and education, with accompanying poor reasons for choices (though this improved with the older children). However, Freeston's survey showed more realism than did a previous one carried out by her in 1938. It does seem that certain factors are operating at present to encourage a more adequate assessment of chances of success. That the assessment is sound individually cannot, of course, be maintained. It may also be that there are certain disturbing elements within this apparent advance<sup>4</sup> but in general it points to a healthy gain.

3. As certain choices were obviously intended to warrant a higher social status, some were re-rated 3 instead of 2. Result: Girls 2.86 Boys 2.71

4. Hood comments on his findings thus: "The list could be said to be humdrum... one might also regret its somewhat unattractive lack of vision." p.86





The relative importance of different factors in vocational choice as portrayed by Jahoda (1952) shows that close relatives or friends provide the greatest influence, with school activities and the Youth Employment Service operating as very minor factors. This may suggest that social influences following the war have been a more significant feature than improved educational provision in producing this realism.

The actual jobs mentioned closely approximate those listed by Hood and seem to give a fair picture of the occupations entered on leaving school. It must be noted, however, that virtually half of such children are likely to change the first job they go into within a short space of time ("CITIZENS OF TOMORROW" - KING GEORGE'S JUBILEE TRUST 1955).

The answer to Q.4 proved a little disappointing, a rather disturbing. It is true the table of means shows differences between actual and fantasy choices, but many children either could not think of what they would most like to do, or were perfectly satisfied with their 'actual' choices. This latter might be taken as a sign that their education has been both satisfactory and satisfying, but one feels that this is not the real reason for the ordinariness of the replies. Lack of appreciation of what other vocations there are and what is entailed in them seems common. Perhaps also the attitude expressed in a recent study of youth (HAMMERSCHLAG 1955) is relevant: "That's correct. I want nothing" - not to hope is not to be deceived.

In conclusion, certain other points are worth noting. Preference for vocations (as distinct from occupations) concerning sport is naturally high with boys, as also is the desire for action and speed. Vocations offering social advantages and good marriage prospects - nurse, secretary, air hostess, model - are highly placed for the girls. The interest in marriage, especially when combined with



nursery-nurse work, is extremely enlightening and in marked contrast to the ranking of this job under 'actual' choices. Creative vocations figure in low positions in both lists, though film stars achieve a moderate standing on each. Teaching, other than specialist work in art, drama or physical education, interests only five girls.

The overall pattern of fantasy choices, though indicating a decidedly higher level of appreciation than that of probable jobs, is a sobering one. Of the areas, the industrial group shows a somewhat higher aim than the rest.

5. IF YOU WERE GIVEN THE OPPORTUNITY AND KNEW THAT YOUR PARENTS WOULD NOT SUFFER FINANCIALLY, WOULD YOU LIKE TO REMAIN AT SCHOOL? YES/NO

<u>AREA DIFFERENCES.</u>				
	S.	I.	R.	U.
percentage 'Yes'	34	28	16	15
N. 'Yes'	32	31	15	14
Analysis: $P = .248$	$X^2 = 17.43$		Sign. at 0.01	

SEX DIFFERENCE.

	GIRLS	BOYS
Percentage 'Yes'	28	22
Analysis: Actual diff. = 6.6	$P = 24.84$ $Sig. = 4.083$	
$t = 1.616$	Not sign.	

Comment: Children in the suburban and industrial groups show a greater desire to remain at school than those from the rural or urban areas. There is no justification for supposing that this desire is greater among girls than boys. The low response to this question is of interest in view of the increasing pressure either to raise the leaving age to 16, or to establish county colleges to close the gap between school leaving and national service. It would appear that the country cannot at present do both.



Hood (1951) reports similar findings with 78% against a five year course and 91% desiring some form of vocational training if such a course were established.

6. WOULD YOUR PARENTS LIKE YOU TO STAY LONGER AT SCHOOL IF IT WERE POSSIBLE? YES/NO

AREA DIFFERENCES.	S.	I.	R.	U.
Percentage 'Yes'	31	17	19	36
N. 'Yes'	48	19	18	23
Analysis: P = .262	$\chi^2 = 73.08$		Sign. at .01	

SEX DIFFERENCE.	GIRLS	BOYS
Percentage 'Yes'	28	26

Analysis: Actual D = 3.2 Does not reach 4.17 the smallest difference that can be significant with numbers of this size and with greatest difference between P and Q that can be obtained, see Q.10

Comment: Pupils in S and U indicate a higher level of parental encouragement to stay on at school than in the R and I areas. The relatively high proportion of 'encouraging' parents in U must be offset against the technical provision following the modern school course which was available in one school. Commercial courses in a fifth year were also offered in some schools. It may be that there is some connection between the extended courses and the reported parental interest in further schooling that requires the provision of such before a change is apparent in parental attitude.

7. WHAT IS YOUR FATHER'S OCCUPATION?

Social rating	S.	I.	R.	U.
I	-	1	-	-
II	8	9	21	4
III	93	62	83	48
IV	21	15	21	19



	S.	I.	R.	U.
V	14	9	13	13
N	136	96	77	78
Mean	3.30	3.23	3.34	3.53
SD	.405	.435	.574	.478

Classified on the five-point social class grouping used for Q. 3 and 4 the area distributions of the occupations ascribed to the pupils' fathers form the following pattern:

Analysis of area differences.

Areas	Diff.	A. Means SDD	t	Significance
S/I	.07	.05634	1.234	not sign.
R/S	.04	.07402	0.541	not sign.
R/I	.11	.7900	1.393	not sign.
U/R	.19	.03432	2.241	.05
U/S	.23	.06425	3.530	.01
U/I	.30	.06994	4.289	.01

B. SDs

U/R	.0961	.05998	1.610	-
I/R	.0428	-	-	-
I/S	.0297	-	-	-
S/U	.0725	.04543	1.595	-
R/I	.1389	.04946	2.809	.01
S/R	.1686	-	-	.01

Comparison of the S & I groups by means of percentage distribution in the ratings.

	I	II	III	IV	V
S.	-	6	69	25	10
I.	1	9	65	16	9





Comment: Based on the above social criterion the U pupils have the poorest social background while those in R and I both in mean level and percentage distribution over the scale show markedly similar patterns to each other. The R group, on the average the same as I and S and better than U, differs in spread. The variation of occupations is much greater than in the other areas with the possible exception of U, and in this is reflected the scale differentiation between farmers (2) and farmhand (4), together with the fewness of skilled workers in the area.

When compared with the means of the rating of pupils' probable occupations: S 3.16, I 3.11, R 3.32, U 3.13 - only the R groups show very close resemblance. It is probably true to say that rural leavers have a rather better idea of what they are going to do. The U leavers tend to think somewhat above their fathers' occupations.

8. HAS YOUR MOTHER A PAID JOB? YES/No

<u>Area Differences.</u>	S.	I.	R.	U.
Percentage 'Yes'	53	39	40	62
B of 'Yes' <del>22</del>	78	41	38	58
Analysis: P = .049	$X^2 = 15.04$		Sign. at .01	
<u>Sex Difference.</u>	Girls		Boys	
Percentage 'Yes'	54	<del>41</del>	45	

Analysis: Actual D = 8.8 P = .49  $Sd_{D\%} = 4.723$   $t = 1.863$

Not sign.

Comment: As was expected the highest proportion of working mothers was in the U area. At least 40% of the mothers in each area appear to do some paid job. The percentage is rather higher for the S group also.



9. ARE YOU GOING TO GO TO EVENING CLASSES? YES/NO

<u>Area Differences:</u>		S.	I.	R.	U.
Percentage 'Yes'		47	54	10	30
N 'Yes'		73	59	9	28
Analysis: $P = .375$ $\chi^2 = 53.16$		Sign. at .01			
<u>Sex Difference:</u>		GIRLS		BOYS	
Percentage 'Yes'		38		37	
Analysis: Actual D = 1.0		Not sign. (see Q.10)			
		S.	I.	R.	U.
GIRLS	N.	73	46	49	40
	Nos.	29	27	5	16
	%	40	59	10	40
Boys	Nos.	81	63	46	53
	Nos.	43	32	4	12
	%	53	51	9	23
TOTAL	%	47	54	10	30

Comment: The I girls show more desire for evening class work than those in S and U, while little intention of attending such classes is expressed by any pupils in R. About half of the I and S boys and a quarter of U boys say they intend to do some evening class work. These figures must be qualified by the comments of the recent report "CITIZENS OF TOMORROW", namely that only a few attend further education unless this is a requirement in the terms of their apprenticeships or employers' conditions (The relationship of proposed courses to future jobs is seen below). Further the enquiry maintains that many of those that do begin do not complete their courses. This means that the above percentages are to be treated merely as intentions. While there is no overall sex difference within the areas, rather more girls in U and rather more boys in S state their intention of going to evening classes.

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Groupings of choices.

<u>Subject</u>	<u>208 Ga</u>	<u>241 Ba</u>
Commercial (sh/typg., Bookkeeping)	44	10
Dressmaking, etc.	13	-
English	15	5
Maths. & Arithmetic	6	22
French	3	-
Science	-	7
Engineering (El., Mech., Radio, metal work 9)	-	32
Carpontry	-	7
Technical drawing	-	9
Art and Drama	4	5
Cooking, Confectionery	4	-
Nursing & Biology	5	1
Customs, Navy classes, Railway	-	3
Hairdresser	1	-
Journalist	-	1
Printing, Plumbing, Building	-	3
Telephony, Duplicating machines	2	-
G.C.E.	-	1

Comment: The majority of girls are interested in commercial fields; the boys in mechanics and engineering. These interests are closely allied to their job choices, very few having no reference to the pupil's likely future occupations.

Number unconnected with anticipated jobs - 18

(10.6% of 170 choices given)

French (2) Art (4) Maths (1)

Dressmaking, etc. (4) Radio (1) Drama (1)

Cookery (1) Fencing & P.E. (4)

The desire for further arithmetic and mathematics is largely job-connected (commercial or trade calculation). With respect to the occasional mention of French, it is to be noted that languages are not taught in any of the mixed schools.



10. DO YOU FEEL THAT THE SCHOOL HAS DONE ITS JOB IN  
HELPING YOU TO GROW UP? YES/NO

	S.	I.	R.	U.	GIRLS	BOYS	TOTAL
Percentages							
'No'	7	6	3	3	7	4	5

No sex difference; no area differences.

(area analysis:  $N_s = 11,6,3,3$   $P = .051$   $X^2 = 3.497$  Not sig.)  
(sex analysis: Diff = 2.6  $sd_{D\%} = 2.116$   $P = 5.3$   $t = 1.228$  not sig.)

Comment: This question was inserted to sound out criticisms of the school in as direct a fashion as possible. From the survey of replies given, it will be seen that the response was most significantly positive. In view of the substantial expression of dislike later evidenced and the criticism educoed indirectly, this may be due to a conditioned attitude or to a desire for self-justification. It may well be however that while willing to criticise certain aspects, the majority of leavers do feel that school has 'done its job.'

IF NOT, WHAT DO YOU THINK IS THE MAIN REASON FOR ITS FAILURE?

GIRLS

Suburban Lack of interest and concentration. (on part of self?)

"More years education is needed."

"Because the teacher makes me an example."

"It is too strict."

Dislike of maths and English

Dislike certain subjects like craft.

Industrial Too many old teachers.  
Need younger teachers with younger ideas.  
Too many art lessons.

Rural Not enough co-education  
Teachers do not join in any fun

Urban Too many in classes and children cannot be taught  
individually and separately

BOYS

Suburban "They teach you all good things but no bad."

Separate and holding people in front of others.  
Not wanted for school at 15.





Rural I have been ill quite a lot and have not stayed at school long enough.

Urban Because the name of the school puts me off.  
(Sir \_\_\_\_\_)

Comment: These reasons given for its failure are mainly directed at teachers and teaching, with some little reference to subject matter. One child is apparently conscious of the class size problem one displays social consciousness with respect to the name of his school and one - the first suburban boy - in a seemingly facetious vein (surprisingly absent throughout the evaluation) points out what the school does not do. Take at face value, this plea for the development of bad as well as good potentialities must be entertained by those who stress maximum individual growth with scant reference to the social setting

11. IF ANY OF THE FOLLOWING STATEMENTS FIT IN WITH YOUR REASONS FOR LEAVING PUT A TICK IN FRONT OF THEM. IF YOU HAVE ANY OTHER REASONS, WRITE THEM BELOW.

Comment: Very few took the opportunity to add reasons to those set down - most pupils felt these covered their reasons in one way or another. Several children ticked them all and on enquiry this was found to be a genuine pattern of opinion - all the statements being quite compatible with or complementary to one another.

The percentages given in the subsections below cannot be taken as the full agreement with any statement. As the children were to tick only those agreeing with their reasons for leaving, this does not prevent them from agreeing with a statement in general even if they do not tick it. The percentages are therefore likely to be underestimates of actual agreement.



(a) FOUR YEARS SECONDARY EDUCATION IS ENOUGH FOR THE AVERAGE PERSON.

AREA:	S.	I.	R.	U.	SEX:	G.	B.
% 'Yes'	64	72	62	60		66	64
N 'Yes'	99	78	59	56		137	155

P=.647  $\chi^2=4.028$  Not sign. Not sign. (see Q.10) D-2.1

Comment: That two-thirds reel your years' secondary education is sufficient fits in fairly well with the previous finding that only a quarter are in favour of further schooling. Hood's (1951) estimate of about 75% being against further school education seems to be borne out. Nor does the figure seem to have changed much over the years as Wall (1948) reports that 70% of elementary school leavers in East London in 1936 had no further use for education.

(b) SCHOOL TIES YOU DOWN TOO MUCH.

24	38	19	29	22	32	
37	41	18	26	45	77	<u>.05</u>

P= .271  $\chi^2=9.77$  .05 D=10.1 P=27.1 Sd =4.2  
t=2.405 D%

Comment: Rather more boys than girls feel that school ties them down too much. A pressing desire for work experience and independence may be behind this difference. The higher agreement among I pupils accentuates a less significant trend noted above in (a). Overall about a quarter give this as a reason for leaving.

(c) I HAVE LEARNT ALL I NEED TO KNOW AND CAN NOW START LIVING.

34	35	36	51	39	37
52	38	34	47	80	91

N=.379  $\chi^2=3.202$  .05 Not sign., see Q.10

Comment: The feeling that all necessary knowledge has now been acquired and that living can commence in earnest is expressed by over a third. This emphasis on life beginning after school is clearly expressed in the opening quotation of this chapter.



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Comment: The desire for independence is strongly shown by over half of the leavers. This wish is similar in all areas and indeed relates to a fundamental need of the adolescent (WALL 1948, HURLCOCK 1955). Girls, probably because of advanced maturity with its many facets, feel this need still more strongly at this age.

(f) MY FRIENDS ARE ALL LEAVING.

30	36	51	37		39	35	
46	39	48	34		82	85	Not sig.

$P=.3711$   $X^2=10.32$   $.05$   $D;4.4$   $P=37$   $sd =4.561$   
 $t=c.965$   $D\%$

Comment: A third are influenced in leaving by their friends leaving - a potent factor when leaving is equated with wage-earning. The influence is greater in the country, presumably because of the distances involved, and the difficulty of retaining friendships when school, work and home are all widely separated.

(g) I HAVE NO INTEREST IN SCHOOL WORK.

20	14	13	17		15	17
30	15	12	16		31	42

$P=.162$   $X^2=2.622$  not sign.  $D=2.4$  Not sign. see Q.10

Comment: A minority (16%) have no interest in school work. This is an encouraging finding on its own, providing a better basis for teachers than many would admit. However, in the light of low levels of performance, it may be misleading - dependent only on the level of work asked for and accepted. I must not be discounted that more may be uninterested; but the figure is still low as a reason for leaving.

(h) I MUST HELP SUPPORT THE FAMILY.

69	81	66	68		68	70
106	88	63	63		141	169

$P=.687$   $X^2=71.97$   $.01$   $D=1.7$  Not sign. See Q.10

Comment: While noting with approval the widespread feeling of responsibility to the home, one must remember that in many cases the decision to support is not in the hands of the leaver. Here again the pressure of the environment expressed





itself in the very large number of I pupils who give this as a reason.

12. DO YOU LIKE SCHOOL? YES/NO.

<u>Area Difference</u>	S.	I.	R.	U.
Percentage 'No'	25	38	34	30
N 'No'	24	41	32	28

Analysis:  $P = .3103$   $X^2 = 4.893$  Not sign.

<u>Sex Difference</u>	GIRLS	BOYS
percentage 'No'	28	33

Analysis: Actual D = 4.9 P = 31 sd = 4.369 t = 1.121  
D% Not sign.

Comment: No significant area difference is apparent though dislike may be greater in I than S. It seems that nearly a third dislike school. While schools do not exist just to be liked, it is always disturbing when one finds how many children do not enjoy them. Problems of discipline and standards must be influenced by this factor. Blisher's (1955) comment, based on a composite picture of secondary modern schools, that pupils are not so much antipathetic to education in the form of school, as quite indifferent to it, only serves to make the issue most significant.

13. ARE YOU LOOKING FORWARD TO WORK? YES/No

<u>Area Differences:</u>	S.	I.	R.	U.
Percentage (No)	9	10	3	12
N 'No'	14	11	3	11

Analysis:  $P = .036$   $X^2 = 5.353$  Not sign.

<u>Sex Difference:</u>	GIRLS	BOYS
Percentage 'No'	8	9

Analysis: Actual D = 0.9 Not sign. (see Q.10)

This together with Qs 14 and 15, acted as "thought-provoker" for the indirect criticism of school involved in Q.16. The percentages agreeing with the three statements are not as high as one might have hoped for but are not alarmingly low.

A little wonder I'm I don't whether they are going to enjoy work.



14. DO YOU FEEL WELL PREPARED FOR IT? YES/NO.

<u>Area Differences:</u>	S.	I.	R.	U.
Percentage 'No'	20	9	10	18
N 'No'	30	10	9	17

Analysis:  $P = .146$   $X^2 = 8.694$  Sign. at .05

<u>Sex Differences:</u>	GIRLS	BOYS
Percentage 'No'	16	14

Analysis: Actual D = 2.3 Not sign. (See Q.10)

Comment: Some 10% in the I and R and 20% in S and U feel unprepared to tackle work.

15. DO YOU FEEL WELL PREPARED FOR LIFE? YES/NO

<u>Area Differences:</u>	S.	I.	R.	U.
Percentage 'No'	16	8	11	14
N 'No'	24	9	10	13

Analysis:  $P = .124$   $X^2 = 3.777$  Not sign.

<u>Sex Differences:</u>	GIRLS	BOYS
Percentage 'No'	15	10

Analysis: Actual D = 5.5  $P = 12.4$   $Sd = 3.113$   
 $t = 1.767$  Not sign.

Comment: 12% or so state that they do not feel well prepared for life.

16. WHAT HELP DO YOU THINK THE SCHOOL MIGHT HAVE GIVEN YOU?

The answers to this question were both numerous and revealing. For convenience they can be grouped into seven sections. The first four sections permit numerical analysis but are followed by examples of the actual replies to illustrate the statements that lie behind the figures. The symbols 'gs' and 'bs' stand for 'girls' and 'boys' respectively.

(a) Additional subjects or more of existing subjects.

A Arithmetic 16 3gs (3bs ask for harder maths)  
 Sh/typing, Book-keeping 16 16gs  
 Cookery/House-keeping 16 7gs (more bs than gs)  
 Sports 16 16gs



Metalwork,		
Woodwork	9	2gs (1 for "more exacting Work)
English	9	4gs
Languages	7	6gs
Needlework,		
Cloth-cutting	7	7gs (2 against handwork)
Pre-nursing		
Pract. Biology	6	5gs
Spelling	4	2gs
Chemistry	2	
Geography	2	
Art	1	
Elocution	1	
Gardening	1	
Horse Riding	1	
Religious Kn.	1	(1 was for no religious kn)
	<u>113</u>	

- e.g. "To learn me with money problems when I work in a shop."  
 "No art lessons - had to give up guides to join Art Club."  
 "School has helped in every way. Only criticism is that we have had no swimming lessons."  
 "Learnt us a language."  
 "Arithmetic is too easy."  
 "Learn me English and arith etc."  
 "Helped a lot if school gave me a few more spelling lessons."

(b) More or better equipment.

Larger playground	2
Better desks	2
Gymnasium	1
Films	1
Better equipment	<u>1</u>
	<u>7</u>

(c) Appearance and personality.

Confidence	9	
Help to grow up	7	
Manners	4	
Way to speak	2	(1 for more debating and talking)
Dancing	2	
Exp. & Kn. of outside life	2	
How to mix	2	
Self discipline	2	
How to work neat	1	
How to dress	1	
How to make up and keep smart/clean	<u>1</u>	
	<u>34</u>	

- e.g. "Might have made me well-prepared to face life."  
 "Courage to start wor."  
 "No help in ordinary life problems."  
 "Helped a lot more in understanding of sex and not left us to pick up a lot for ourselves."  
 "Learnt me to help myself."

(d) Vocational assistance.

Lessons on job	
Help for job	25
Help to get job	10
Specialize in last year	<u>1</u>
	<u>36</u>



e.g. "They might have let us do our own subjects."

(e) Teachers.

"Teachers did not look after you enough."  
 "Better teachers."  
 "Less tempers from teachers."  
 "Teachers sometimes have a temper."  
 "Teachers' tempers."  
 "Teachers get in bad tempers quickly."  
 "Teachers too big for boots."  
 "Some teachers too bossy."  
 "Mr \_\_\_\_\_ the sack."

(f) Teaching and what taught.

"Longer lessons" (4 asked for this)  
 "Help us forward in what we are interested in."  
 "Could have encouraged us a bit more."  
 "Teach us more of what the children taken an interest in."  
 "Widen our education instead of giving so much time for games."  
 "Not to do it if you think you can't".  
 "Too much show not much done about work."  
 "They could learn us different things and not the same."  
 "Could have had a better way of making things clear."  
 "Should have taught individually."  
 "To learn to do things on your own."  
 "Cut out gardening because people seem to get out of lessons through it."  
 "Might have given me more help."  
 Help "In financial affairs."  
 "A better education for a better job."  
 "Might have let us study for G.C.E."  
 "A lot of help." "Plenty!" (2)  
 "Education." "A good education" (2) "A better education"  
 "Quit a lot" "Quite a lot."  
 "Understanding hope and knowledge." "Experience."  
 "Education and understanding."  
 "Worldly knowledge and understanding."

(g) Pupil choice.

"To be able to choose whether one wants to be a prefect or not."  
 "We should have our say."  
 "More choice of subjects."  
 "Staff should let us have our say."  
 "Should be able to have say before punishment."  
 "Get in lessons"  
 "Have to follow timetable and not do what you like."  
 "Need subjects that appeal to you and that you are interested in."  
 "I think subjects should be chosen by pupils except English and maths."  
 "Girls to do boys' jobs and other way round (handy in married life.)"

Comment: (a) The tendency shown is to ask for more of subjects they think necessary for work or home life or for school activities they are interested in. There is little desire for subjects not covered in a normal curriculum; requests for languages being the exception. Specific mention of spelling as opposed to English is interesting.



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as is the desire for more and harder arithmetic. The topics as ranked correspond closely to those in lists of subjects senior school children would have liked to do at Youth colleges (Wall 1935).

(b) Few pupils feel that there is a need for better equipment. Indeed most of the schools were adequately provided for.

(c) A small yet significant number express a desire for assistance with social and personal problems. The items probably represent some of the reasons behind not being "Well prepared for life."

(d) A similar number think that vocational training and guidance should have been part of the school's programme. Certain other references which apply to vocational preparation are, of course, also included under section (a).

(d) Though there is similarity among certain criticisms of teachers in fact, as with the complementary (though scarcely complimentary) remarks from Q 10, save in the case of two items, the statements come from different schools or classes tested separately within one school. While experience with the pupils involved tempts the writer to qualify their impression of their teachers in the light of their own behaviour, nevertheless the unfortunate disrespectful attitude towards teachers is by no means confined to those expressing themselves in this question.

(f) The items in this section range from plaintive pleas to downright disgust. The request for longer lessons was perhaps more common among the staff than the pupils and carried particular weight where periods lasted merely half an hour, with room changing cutting this down further. Of importance is the notion that children may be bored with material simply because they have 'done' that period, country or experiment, even though the later approach is at a higher level and more intense. Perhaps closer consideration of individual motivation and the best time for presentation



of different sorts of material would assist in the matter. A number of children are obviously dissatisfied with the schooling they have been receiving but few have expressed it more succinctly than the boy who, replying to what the school might have done, simply wrote "I earned me."

(g) There is some evidence that the pupils would like to choose their own courses and to this must be related the requests in (a). The first reply in this section exemplifies a desire not to be put in a position which would - at least in the pupil's eyes - prevent him from being the same as his age mates. This is one of the difficulties of a school without a 'top'. The pupils who are expected to be the models are more interested in differing as little as possible from their peers.

In all these comments, the suggested conclusions or inferences made are merely tentative statements arising from a small amount of evidence. But as such, with experience of the children to back up opinions, they are not without value as pointers to possible defects in school education as seen by the pupils. As a final note, it must be added that not all answers to this question were criticisms, as exemplified in the aggressive loyalty of "They done everything possible thank you."

17. WHAT TYPE OF READING DO YOU PREFER? (SCHOOL STORIES; ADVENTURE; DETECTIVE; SCIENCE; WESTERN; ROMANCE; MYSTERY; ANIMAL - NATURE; SCIENCE-FICTION, or any other)  
1.....2.....3.....

If it is true, as Britten (PROTHERO 1955) says and Scott (1947) agrees, that adolescents need to read not only because they are growing up and reading extends their experience, but also because growing up brings with it difficulties and tensions from which reading affords an escape, an examination of reading tastes should reveal wherein attempts are made to resolve such tensions. Unfortunately studies of book titles apart, the value of grouping preferences is questionable.



chosen - especially at the adolescent level. Nevertheless grouping does give some information and allows comparison with similar studies.

Preferences		S.	I.	R.	U.	% chosen
Mystery	g.	49	32	26	27	87
	b.	31	27	14	31	44
Detective	g.	40	27	21	15	51
	b.	46	41	23	26	58
Adventure	g.	29	18	29	19	47
	b.	42	27	25	23	50
Romance	g.	50	37	32	26	72
	b.	13	10	17	13	23
Animal-nature	g.	7	6	6	3	11
	b.	14	12	11	6	18
School stories	g.	18	4	13	8	21
	b.	3	3	-	2	3
Science	g.	4	1	1	4	5
	b.	15	8	3	5	13
Western	g.	10	2	-	5	8
	b.	18	12	11	8	21
Science-fiction	g.	2	2	-	1	2
	b.	9	11	3	6	12
War	b.	5	4	3	1	6
Sport	b.	1	2	-	3	3
Others*	g.					4
	b.					6

* Ballet.....1Sg	Classics.....1Ug
Handcraft.....1Sg, 1Sb, 1Rb, 1Ub,	Hospital.....1Sb
(Stamps and modelling)	Fairy tales.....1Ug
Air.....1Sb, 2Ibs, 1Rb	Human nature.....1Sb
Gardening.....1Sb	Trade.....1Sb, 1Ib
Biographies.....1Ib, 1Rg	Sexy books.....2Ibs
Family.....2Ugs	Film.....1Ub

Comments As the percentages indicate, the order of preference for girls - Romance, Mystery, Detective, Adventure, School - differs from that for boys - Detective, Adventure, Mystery, Romance, Western - but the fields of interest are very much the same. The position of Detective for boys is similar in Scott's list for New Zealand pupils and the accent on adventure and mystery agrees with the findings of Barlow.



(1955) and Lazar (1937). Naturally enough Romance is high on girls' lists (Wall 1948, HULLOCK) while the interest in school stories has also been previously noted (JENKINSON 1946, GRUNSPAN 1955).

Little is known about the actual books read, but criticism has been trenchant in recent publications. Thus Woodfield (1949) protests strongly against the 'dope' of inferior books in public libraries and modern schools, and Ralph (1949) warns that "many children read far too much, a fact which teachers tend to ignore." Though Gray (1950) states that by 15 the reading interests of both sexes are more or less definitely developed, reading may be channelled into cheap, sentimental novels and thrillers, or peter out entirely.

An examination of the preferences mentioned reveals the significant gap in the field of hobbies and related interests<sup>5</sup> - supposedly of great importance, especially to boys of this age (GRAY, LAZAR, SCOTT). One cannot but feel that behind the above figures lies a very pressing problem. Jenkinson may have put forward part of the answer in emphasising children's interests, but guidance is definitely required. Children read most when they have acquired the art of reading fluently, but they need assistance in developing sound habits and broadly-based interests and tastes.

# 18. DO YOU ENJOY READING? YES/NO

<u>Area Differences:</u>	S.	I.	R.	U.
Percentage 'No.'	8	5	13	7
N 'No'	13	5	12	6
Analysis: $P=.08$	$\chi^2 = 4.747$		Not sign.	

<u>Sex Differences:</u>	GIRLS	BOYS
Percentage 'No'	4	11

Analysis: Actual Diff = 6.8  $P = 8.84$   $\chi^2 = 2.584$   $t = 2.651$

Sign. at .01





Comment: Only a small number dislike reading but this is more common among the boys, and perhaps among the rural sample. That only a mere 8% do not like reading, when linked with the previous question, reveals even more the potential field for guidance.

Though prefaced by Q 17, a number of children may have classed 'looking at comic books' as reading, but nevertheless the lack of negative attitudes to reading is a valuable educational advance.

19. HOW MANY BOOKS OF YOUR VERY OWN HAVE YOU AT HOME?

No.	S. 62gs 75bs	I. 60bs	R. 46gs 45bs	U. 37gs 34bs
0	1	3	1	2
1 - 5	5	10	5	4
6 - 10	9	13	3	7
11 - 20	18	16	8	12
21 - 30	11	15	8	9
31 - 40	6	3	5	3
41 - 50	8	8	4	3
51 - 70	2	3	5	2
71 - 100	1	2	7	10
100+	1	2	1	-
(unanswered)	7	3	1	2
? ("lots" "don't know")	4	3	1	-

Sex	0-10	11-20	21-30	30+
GIRLS (196)	47 25%	43 22%	34 18%	66 33% 47% under 21
BOYS (214)	73 34%	48 22%	44 21%	47 23% 56% under 21



Comment: This type of question may well be unreliable though the pattern of results seems a probable one. It would be surprising if, in the lower ranges, the pupils underestimated the number owned and with this level providing the most valuable information the question has some worth. This increases when the question is related to the possession of library tickets.

How many books constitute a desirable minimum cannot be ascertained because of the many factors that enter in - access to parents', siblings' or library books. Still, from an arbitrary point of view, with presents, individual purchases and prizes, one might hope for personal possession of 10 to 20 by the age of 15 - even more if vocational, hobby or sporting interests are followed.

That girls own more than boys accords with the finding that they read more (JENKINSON). Grammar school girls own many more as one might expect, Grunspan's figures revealing on re-analysis that 5% own 0-10, 21% 11-20, 16% 21-30 and 47% 30+ (i.e. only 26% own fewer than 21 books compared with 47% of modern school girls and 56% of modern school boys). The pattern no doubt represents economic as well as interest factors but is not particularly encouraging.

20. DO YOU POSSESS A LIBRARY TICKET? YES/NO

Area Differences:	S.	I.	R.	U.
Percentage without	26	61	77	65
N without	40	66	73	60
Analysis: P = .53	$\chi^2 = 73.7$		Sign. at .01	

<u>Sex Differences:</u>	GIRLS	BOYS
Percentage without	52	54

Analysis: Actual D = 2.0 Not sign. (see Q 10)



Comment: There are far more children with library tickets in the suburban area than in any of the others, while the smallest percentage with tickets is not unexpectedly in the rural sample. Though children were told to mark Yes only if they possessed a public library ticket, it is not unlikely that some have only a school ticket.

While distance from a library has been considered a vital factor in the promotion of reading interests, mere accessibility is no guarantee that individuals will engage in or be interested in recreational reading (CUTRIGHT & BRUECKNER 1923). Even membership is not enough - guidance and stimulation still being required.

Jephcott (1954) states that the bulk of reading of the young people she interviewed consisted of papers, magazines and comics - ".... relatively few of the youngsters ever read a book as such," and not one in five was a member of a public library.

Encouragement of library membership must be accompanied by adequate and meaningful assistance in habits, preferences and skills.

21. WHAT DAILY AND WEEKLY NEWSPAPERS DO YOU READ REGULARLY?.....

National Dailies.	Nos. reading the papers.							
	Total	CITY		Country S.		I. U. Girls		Boys
No.	450	354	96	152	109	63	157	181
MIRROR	292	247	45	107	76	64	113	134
EXPRESS	58	38	20	16	10	12	15	23
HERALD	44	41	3	28	12	1	23	18
SKETCH	41	31	10	21	7	3	9	22
CHRONICLE	21	11	10	7	2	2	3	8
MAIL	13	10	3	1	7	2	6	4
GUARDIAN	9	9	-	-	9	-	4	5
DISPATCH	8	8	-	4	2	2	1	7
DAILY WORKER	4	4	-	2	2	-	1	3
TIME	2	2	1	1	1	-	1	1



Sunday papers &  
Weeklies.

NEWS OF THE WORLD	127	105	22	39	42	24	53	52
PICTORIAL	86	73	13	33	23	17	41	32
REVEILLE	85	83	2	35	35	13	35	48
WEEKEND MAIL	53	52	1	21	21	10	23	29
PEOPLE	43	38	5	17	17	4	20	18
TITBITS	20	17	3	6	9	2	4	13
WOMEN'S MIRROR	8	5	3	2	2	1	5	-
GRAPHIC	6	6	1	2	3	1	5	1
SUNDAY EXPRESS	5	3	2	3	-	-	2	1
OBSERVER	5	5	-	4	1	-	3	2
REYNOLD'S NEWS	5	5	-	4	1	-	3	2

Comment: Dailies. In general the preferences for dailies are in agreement with the findings of the Hulton Press (1950,1955) and Burns (1955) while showing distinct changes from the order reported by Jenkinson (1946) for senior school children in 1938.

	Mirror	Mirror
	Express	Express
Hulton 1955 (adults)	Mail	Burns 1955 Herald (14+)
	Harald	Main
	Chronicle	Chronicle
	Sketch	
Hulton 1950 (children)	Mirror	Jenkinson Mail 1938
	Express	Herald
	Mail	Chronicle
	Herald	Express
	Chronicle	Mirror
		Sketch

The Mirror is mentioned more often than all the other papers put together - a finding also reported by Stewart (1947), though her query was simply about 'papers' read. She also reports (1950) that the Mirror is most popular with grammar school children as well, and it was a grammar schoolboy who wrote "The Daily Mirror is a low-class sensational rag: I read it every day."<sup>6</sup> Nearly all the above papers are

~~sensational, the Chronicle perhaps rather less so. Jenkinson~~





states that they all rely on headlines, captions, heavy point and confusion of evidence and opinion displayed with "stimulating tricks or style and expression."

Less than 1% read the Times or the Daily Worker, while only 2% read the Guardian - all the latter coming from the industrial area.

Sunday papers and weeklies. Apparently with the above sample the order obtained is fairly stable throughout the areas. Comparison with other findings seems to indicate that the people is not as popular as the Pictorial, though in Burns's findings these are reversed. Reville also is placed higher by the present groups. The Weekend Mail is more widely read by the age groups than the studies of Burns or the Hulton Child Readership survey indicate, as they do not include it. The reading of weeklies is rather more common in the industrial sample, though the Pictorial is spread fairly evenly among the groups. The much lower number of readers of "Weeklies" in the rural group explains the smaller overall number of papers (excluding periodicals) read by that group. Results may indicate some preference of the girls for the Pictorial and of the boys for Reville and Titbits. The position of the News of the World clearly at the top of the list agrees with the surveys of Hulton Press, Burns and Stewart.

Local Papers	Total	City		S.	I.	City		COUNTRY	
		City	Country			U. S.	U. S.	Bos. City	Girls
N:	450	354	96	152	109	93	157	181	49 4
Local papers	72	27	45	25	-	2	19	8	31 1

Comment on local papers: Much more reading of local papers is reported in the country; and, in both country and city, more by girls than boys. In the city the only group to show moderate attention to locals is the suburban. The proportion of local to other papers is similar to Stewart's finding with



London Evening Papers N:	Total 354	CITY ONLY.				
		Girls 157	Boys 181	S. 152	I. 109	U. 93
STAR	81	40	41	33	24	24
NEWS	52	21	31	15	20	17
STANDARD	13	6	7	5	2	6

Comment on evening papers: The displacement of the News by the Star is surprising when the News has by far the greater circulation.<sup>7</sup> And the News seems less popular in the suburban area. There may be some preference of the boys for the News - if so, it is possible that it is the full sports coverage that attracts them.

Hulton 1955

News  
Star  
Standard

No. reading Dailies.

No. read	S.		I.		R.		U.	
	73gs	81bs	83gs	63bs	49gs	47bs	40gs	53bs
0	4	6	1	6	8	9	6	6
1	40	40	22	32	29	31	20	25
2	32	44	34	22	22	14	24	30
3	33	27	15	33	3	-	3	12
4	2	3	1	1	-	-	1	3
5	-	1	-	2	-	-	-	-

Average number: 1.55 1.58 1.63 1.60 1.10 0.96 1.28 1.49

Average for city: Girls 1.50 Boys 1.56

No. of papers read (excluding periodicals so classified by Willings)<sup>8</sup>

8. The following are classified by Willings Press Guide as periodicals and not as newspapers: Children's Newspaper, Titbits, Reveille, Weekend Mail.



No. read								
0	1	3	-	5	5	4	2	5
1	15	27	8	16	10	20	15	19
2	19	23	14	18	16	13	6	16
3	21	15	14	14	10	9	10	7
4	14	5	5	4	5	-	7	4
5	2	4	3	3	3	1	-	-
6	1	2	1	2	-	-	-	2
7	-	-	1	1	-	-	-	-
8	-	2	-	-	-	-	-	-
Ave-Range								
number:	2.52	2.32	2.24	3.22	2.18	1.66	2.10	1.89

Comment: Country children read fewer national dailies.

Urbangirls read rather fewer than other boys and girls in the city. The average of one and a half papers (dailies) for boys and girls in the city agrees with the findings of Wall and Burns.

Girls seem to read more Sunday papers than boys in all the areas, but this is in part offset by the fact that, as we noticed before, the boys tend to prefer those weeklies that are classified as periodicals and therefore not included in this total average. Reading seems greater in the I and S areas. The average number of papers read does not appear to have altered much since 1938 when Jenkinson reports the figures as 2.5 for boys and 2.6 for girls.

Additional information: Only 2 mentioned the Radio Times (which is listed second to News of the World for total readers in population according to Hulton Press); Burns found the same thing and it may well be that this age group do not read the paper though it is in the house. 1 read the Junior Express and 6 the Junior Mirror; these are really



Comment: Newspapers appear to be used to pass the time, for entertainment and for information - probably in that order. Cartoons (comprising comic strips in the main) are also highly placed according to Burns and Wall (1948) and Entel (1963) - now; Indian children. Sport in the present list has a rather lower rating than in the others just mentioned save in the case of Burns. Front page and corner news top the list for Burns but when this item is split into News and Reports of Events, the difference in weighting of these items is obvious. His 13-14 years old boys were more interested in jobs than the above 11-15 years olds who were probably more decided about what they were going to do - in contrast to the girls.

The I girls seem less interested in situations vacant than the other girls (19% as compared with 37%, 42% and 50%). While the I boys show less interest in the others (19% as compared with 37%, 42% and 50%) that fits in with the former hypothesis about this item. It may indicate a continual search for better positions.

Astrology which figures little in previous lists occupies a significant place in the girls' reading, being mentioned twice as often as sport.

The obvious interest in TV and Radio in the ordinary newspaper goes some way to explain the lack of mention of the Radio Times in answer to Q21. Certainly this represents an important part of adolescent newspaper reading.

The alarming feature about these results is that in the first six items ranked, reading of continuous prose is at a minimum. For the girls this might occur in crime reports and perhaps TV and Radio comments; for the boys, in crime and TV/Radio or sport (though the latter may be confined to results.) If it is also true of English youth that more time is spent on newspapers than on books in adolescence (HURLOCK, GRAY) with rather predominantly comic strips,





or advertisements, presented in a form largely lacking in fluent expression, a very serious situation exists. Concern heightens with the knowledge that additional reading is largely made up of comic books and poor quality magazines.  
(WILLIAMS)

23. HOW MANY TIMES DO YOU USUALLY GO TO THE CINEMA LAST FORTNIGHT?.....

	S.(150)	I.(106)	R.(83)	U.(80)
Average attendance/fortnight	2.42	3.28	1.51	3.42

Analysis of variance for area differences:

	Variation	df	ss	M.s.	F
1. General mean=7.66					
2. ss between means					
=309.92	Between means	3	309.92	69.97	18.27
3. Total ss=1335.49	Within groups	424	1625.47	3.831	
4. ss within groups					
=1625.47					

Comment: Differences significant at .01 level

Internal Analysis between area means:

SD (from total variance within groups) = 1.957

Areas	Diffs.	Sign.level	Levels for two largest means:
I/S	.36	.01	5% if diff.4893
I/R	1.77	.01	1% if diff.6433
U/I	.14	---	Levels for two smallest means:
U/R	1.91	.01	5% if diff .5899
U/S	1.00	.01	1% if diff .7756
S/R	.91	.01	

1ge.  $SE_D$  .2484

sm.  $SE_D$  .2974

Comment: Concern at the influence of the cinema on children has prompted a number of surveys. The results presented here confirm most of the previous findings and introduce some additional points. The U and I groups go more often than the S and R samples and the suburban more often than the rural i.e.  $U \& I \gg R$ . The area differences are probably due to factors of interest, opportunity and availability of alternative activities.

Sex differences.

Visits/fort.	Girls (197)	Boys (231)
--------------	-------------	------------



Visits/Start.	Girls (197)	Boys (231)
9	-	-
8	5	12
7	-	1
6	11	14
5	2	10
4	36	69
3	15	20
2	61	34
1	33	30
0	34	23
Average attendance per fortnight: sd	2.33 1.357	2.05 2.195
<u>Diff.</u>	<u>SD<sub>D</sub></u>	<u>t</u>
.6149	.196	3.137
		Significant at .01 level

Comment: About the same percentage go once a fortnight as attend irregularly, or not at all (12% of boys, 17% of girls). Girls, on the average, attend less frequently than boys - a finding reported in all other enquiries. Some comparison of attendance figures can be obtained from the following analysis of reports.

Group		More than 1/wk.		1/wk.	
		B	G	B	G
Senior school (A. Jenkinson (1946) classes, Modern)		31	34	39	32
Secondary (Grammar)	Jenkinson	17	11	30	29
H.Z. High school (Comprehensive)	Scott (1947)	5	6	35	35
Secondary Modern	Stewart (1947)	30	24	57	50
Secondary Modern & Technical	Wall (1948a)	60	41	23	36
Secondary Modern	Hill (1955)	47	35	28	31

1. In 1932 Spencer reported that 6% never attended but more recent surveys place those who do not go at under 2% (JENKINSON, WALL). Certain information from the diary material gives some validity to the answers in the questionnaire.



Average weekly attendance	Questionnaire	1.16	1.47
	Diary	1.03	1.47

Hall gives the average for Grammar school pupils as 1.0 for boys and 0.9 for girls, while Stewart (1960), whose figures seem lower all round than other surveys, reports 0.59 for grammar school boys and 0.49 for the girls.

The time spent in the cinema has alarmed some writers. Hall points out that if children attend more than four times a week, the period spent watching the screen approaches actual school time per week. But it is difficult to reason in this way when one knows how long the adolescent remains in the cinema and what is done there. Hurlock, though reporting that most children in the stages go once a week rather than more than once, says that a fifth see the feature through twice. Because of this, the average time is 4.15 hours a week. Now if a similar trend is prevalent in England, and the diaries suggest this, the average time would be much greater because apparently modern school children go more often. The diaries indicated that a number of children were in the cinema for 4.5 hours. This does not mean, however, that they were watching the screen all the time, as the following excerpts will demonstrate. The cinema is a social meeting place, a convenient and socially accepted spot for sexual experiments and experience.

"I was with my girl at the picture" - 3½ hours

"Arrived at the pictures in their I looked for girls." - 4½ hours

"In the picture I saw a number of good looking boys

I was just waiting for one to put his arm round me and it was time to leave so I did not get one.

"We went to the pictures he kissed."

"Went to the Flicks. He put his arm around me we lumbered had a smoke in the interval lumbered for a while."



"I was upset in those because those were on girls."

Perhaps the comments on this section are best concluded with a statement by Stewart (1947) "It seems to us, therefore, that children should not habitually go to the church more than once a week."

21. HOW MANY TIMES DO YOU USUALLY GO TO CHURCH EACH MONTH?....

N Gs = 133      N Bs = 213      N 401

Visits/mth	G55ss	S. 77bs	I. 41ss	I. 53bs	R. 43ss	R. 40bs	U. 34ss	U. 48bs
0	36	51	32	37	4	9	14	34
1 - 3	13	7	5	4	10	9	10	8
4	21	16	7	9	23	13	10	5
More than 4	5	3	6	3	6	9	-	1

	Girls	Boys	Diff.	SD <sub>D</sub> %	t	Level of sig.
Do not attend	42%	60%	18.46	5.009	3.684	.01
Go 1-3 times	21%	13%	7.91	3.717	2.126	.05
Go 4 times	23%	19%	10.66	4.673	2.23	.05
Go more than 4 times	9%	8%				

Comment: The three city areas present a fairly homogeneous pattern with more than half paying no regular visit to church. On the other hand, over half of the country sample attend at least once a week. That churches are often the social gathering places of village communities may partially explain this marked difference.

Girls go more often than boys and this is consistent at all levels of attendance.

Those who do not go regularly each month may attend occasionally on holidays or special church days but the number in this group is unlikely to increase in the few years after leaving school as according to Mereten (1944) most of the adults in his study ceased attendance between 15 to 19 years.





Post-war adolescents in the United States attended rather infrequently (49% once a week, 29% once a month, 32% holidays or never), but Ball (1936) maintains that the children possess a more favourable attitude than the figures suggest.

Adults' attitudes to church appear less favourable than to religion (Moreton). This is reflected in adolescent viewpoints and may explain why in this period of development when religious interest is said to heighten, attendance at church does not increase.

25. TO WHAT RELIGIOUS FAITH DO YOU BELONG? (e.g. ANGLICAN, METHODIST, JEWISH, HINDU, etc.)

N 441

Anglican	137	No affiliation	32
Methodist	71	No answer	51
Minor Protestant	24		
Unaffiliated	33		
Roman Catholic	18		
Jewish	4		
Greek Orthodox	1		

Comment: The sample is predominantly protestant. Some 13% omitted the question, which may or may not have been an indication of lack of church connections, while a further 13% stated definitely that they had no affiliation with any church group.

The school preferred not to have this question included.

#### DIARY INFORMATION.

##### Club attendance and Evening Classes.

CLUBS (EXCLUDING RELIGIOUS AND OTHER GROUPS TO WHICH YOU BELONG OUT OF SCHOOL) 1.....2.....3.....4.....



	S		I		R		U	
	a	b	a	b	a	b	a	b
No attending Evening Classes	-	-	9	5	-	-	4	3

N	42	38	30	30	99	23	31	46
---	----	----	----	----	----	----	----	----

No. attending Clubs	26	27	14	21	18	16	13	30
---------------------	----	----	----	----	----	----	----	----

GRIDS attending clubs: 54% not attending: 46%

BOYS attending clubs: 71% not attending: 29%

Members attending the following groups:

Total Bs = 137, Gs = 132

		S	I	R	U	TOTAL
Youth Special	g	6	5	5	2	18
	b	5	10	8	19	42
Sport (1 or 4)	g	3	1	7	3	14
	b	7	3	8	5	23
Scouts, Guides	g	3	-	2	2	7
(BS & GLS)	b	8	7	1	-	16
Church, Religious	g	7	-	-	1	8
Governments	b	7	-	-	-	7
School	g	8	-	-	-	8
	b	6	-	-	-	6
Music (Band, Choir, Orchestra, Bell-ringer)	g	-	1	8	2	5
	b	3	-	3	1	7
Boys' Groups (Ment. g)	g	3	1	3	-	7
	b	2	-	-	-	2
Art & Crafts	g	1	2	-	-	3
	b	-	1	-	-	1
Dancing	g	7	6	13	6	32
Young Farmers	b	-	-	3	-	3
Pre-Service Army Cadets A.T.C.	b	3	-	7	2	12
Fishing	b	-	-	2	-	2
Hobbies	b	-	-	-	2	2
Radio	b	-	-	-	-	-



**Cement:** Half of the girls and nearly three quarters of the boys attend some organised club or youth group. Dancing and sport are the main interests of girls and boys respectively, most of the youngsters attending youth, social and school clubs for these specific activities. Very few of the attendances are connected with hobbies, music, drama or art.

The findings agree well with those of Sten ... (1947) who reports 47% of girls and 73% of boys going to clubs. It is noticeable, however, that cinema clubs do not appear in the above lists, though these were popular with her sample of boys. Hall (1948) traces the rise of club membership in Nottinghamshire from 15% to 50% over the period 1930-41. He estimates that voluntary membership will not exceed 50% of the 14-18 year olds, even in the best conditions. Jephcott (1964) found only one in three belonged to a youth organisation in parts of London, Oxfordshire and Nottingham, but her figures do not take sports clubs into account. She did note the tendency to favour clubs not requiring a uniform which is also apparent in the present results. A much more favourable attitude of girls towards clubs is reported in an enquiry by McGhee (1960) this does not seem to express itself in membership. Further, while the need for club affiliation is greater after leaving school, experience shows that the overall attendance is likely to drop. (MORGAN 1944)

The diversity of clubs is greatest in S, where church groups and uniformed clubs gain their greatest support. The bulk of the children in I and U attend youth and social clubs, and these offer variety within the single unit. Attendance at these is probably dependent upon the facilities available in other forms - lack of voluntary organisations forcing the establishment of youth centres satisfying varied needs.



Here non-attendance, taken by itself, does not imply that the adolescent is lost. Healthy development can often occur without club affiliation being a necessary contributory factor. What is of importance is whether comparable opportunities for development lie outside such organisations within the home or community itself. In many areas it would seem that this requirement is far from being fulfilled.

Though few children go to evening classes while still at school, it is interesting to note that demand for this further education is greatest in I and not apparent at all at this stage in S.

### Team participation in Games.

#### SPORTS TEAMS FOR WHICH YOU PLAY IN THE WINTER?

1.....2.....3.....4.....

#### SPORTS TEAMS FOR WHICH YOU PLAY IN THE SUMMER?

1.....2.....3.....4.....

		S.		I.		R.		U.	
		42cs	38bs	30cs	30bs	29cs	23bs	31cs	46bs
SUMMER:	0	27	22	21	9	15	7	13	27
(cricket,									
swimming,	1	5	11	3	11	4	7	10	14
tennis,									
cycling,	2	9	4	4	9	9	5	8	4
athletics,									
rounders)	3	1	1	2	1	1	4	-	1

Average no. of teams: 0.62 0.53 0.57 1.07 0.86 1.26 0.84 0.54

Average no. for those in teams: 1.4 0.9 1.3 1.5 1.8 1.6 1.4 1.

Averages for girls: (132) 0.7 & (56) 1.7 / 42% in 1+ teams / 58% in 0

Averages for boys: (137) 0.8 & (72) 1.5 / 53% in 1+ teams / 47% in 0

(\* = 1 or more than 1)

Comment: More boys play summer sports in teams than girls, but the girls who do play tend to belong to rather more teams. The rural boys have a higher percentage playing in a team along with the I boys, than the S or U boys. The R girls have the highest percentage among the girls.





		S.		I.		R.		U.	
		42gs	33bs	30gs	30bs	20gs	23bs	31gs	24bs
WINTER:	0	27	19	20	17	15	6	13	23
(football,									
Badminton,	1	13	16	6	12	5	16	13	21
table tennis,									
rugby, net-2		2	3	4	1	9	-	-	2
ball, hockey,									
fencing, 3		-	-	-	-	-	1	-	-
skating)									

Average no. of teams: 0.45 0.58 0.47 0.47 0.79 0.83 0.60 0.5

Average no. for those in teams: 1.1 1.1 1.1 0.7 1.6 1.1 1.0 1.0

Averages for girls: (132) 0.5 & (57) 1.3 / 43% in 1+ teams / 57% in 0

Averages for boys: (137) 0.6 & (72) 1.1 / 53% in 1+ teams / 47% in 0

Comment: More boys also play in winter teams and again it seems that girls who do play, play in more teams. Those who play in the main play only in one team. The percentage not playing is again lower in R boys and R girls.

Percentage Not playing at all: 62% 42% 57% 30% 52% 22% 30% 46%

GIRLS: 53%  
BOYS: 37%

Comment: About a half of the girls and a third of the boys do not play in any team at all. Participation of girls is greatest amongst the U group and smallest in the S area; whereas for boys it is highest in R and lowest in U.

Considering that teams of any type or level were admissible, the percentages of non-players is alarmingly high.

#### Paid Jobs.

DO YOU HAVE A PAID JOB OUT OF SCHOOL HOURS? YES/NO.

IF YOU HAVE? WHAT IS IT?.....

No. with paid job 10 22 2 14 2 14 8 22

Percentage with paid job 24 33 7 47 7 61 26 48



Comment: Less than a fifth of the girls (17%) and over half the boys (53%) have paid jobs. 6 boys have two jobs, e.g. a paper round and shop work. 42 pupils have paper rounds, 32 act as shop assistants or deliverers, 10 do farm or house work, and the others are hairdressers, baby minders, milk boys, office workers or gardeners. The girls who have jobs work an average of 6 hours per week, while the boys work approximately 8 hours.

Household Chores.

GIRLS.	S.	I.	R.	U.
N.	42	30	29	31
No. having to do chores	39	27	29	27
Percentage	93	90	100	87

BOYS.	S.	I.	R.	U.
N.	38	30	23	46
No. having to do chores	26	20	19	31
Percentage	71	67	83	67

103 City Gs / 90%

114 City Bs / 67%

23 Rural Gs / 100%

23 Rural Bs / 83%

Jobs	G.	B.	Jobs.	G.	B.
Errands	35	47	Milking	-	9
Path Sweeping	-	4	Cleaning	-	1
Gardening	20	29	Shoes	-	1
Washing-up	24	25	Painting	-	1
Feeding	-	-	Shop serving	2	-
animals	5	7	Housework	43	14
Odd jobs	-	3	Own room	5	2
Cleaning	-	-	Bed (s)	6	4
windows	-	2	Washing	7	-
Wood & Coal	1	4	Ironing	6	-
Child minding	9	2	Cooling	9	-
Tractor	-	-	Mending &	-	-
driving	-	3	Dressmaking	4	-

Comment: All the girls in the country schools assist round the house as also do 9 out of 10 of the city girls. About 7 out of 10 city boys and 8 out of 10 rural boys do house-



Relative number of hours of various out-of-school activities for the groups per week. The number of hours are only very roughly comparable from area to area or even for boys and girls in the same area, but relative ranking gives a more reliable index for comparison. (See Table 7.2)

	1966	R. 50	34	I. 40	65	R. 34	38	U. 37
Reading books	73	20	31	22	45	19	29	34
comics	3	6	3	9	3	2	3	26
papers	30	24	20	9	15	13	6	37
TV	179	124	126	147	130	88	100	240
Radio	120	104	71	14	115	45	34	70
Library	6	31	2	-	-	-	-	3
Clubs (mainly sport, dancing)	45	113	28	66	147	7	25	99
Job	51	123	8	119	15	169	40	179
Cinema	60	48	78	63	25	18	90	265
Sport: watching	12	64	14	149	41	58	15	142
	-	-	-	29	24	3	2	2
Cycling & time in parks, etc	36	83	55	68	33	26	33	125
Fishing	-	26	-	44	-	-	-	7
Evening classes	-	-	21	-	-	-	-	-
Homework & short-hand practice	36	13	8	-	-	-	-	-
Dancing	6	1	9	-	43	4	29	4
Needle-work, Knitting, sewing	33	-	42	-	31	-	7	-
Indoor games cards records, billiards puzzles, drawing, chess, darts	39	31	5	3	6	-	11	17
Cuttings, drives	-	-	30	-	6	-	-	17
Shows, parties	6	-	12	-	-	-	-	4



	S. S.	b	S. I. b	S. R. b	g. U. b
Cleaning car/bike	-	-	3	-	5
Hobbies	18	26	24	22	18
NUMBER HAVING THE FOLLOWING HOBBIES OR INTERESTS:					
Penfriend	2				2
Drama	1				
Elocution	2				
Piano	3	5	1	6	
Band		3			
Matchbox collecting		1			
Scrapbook		1			
Model planes		3	3		3
Art		1			
Clay modelling			1		
Insect/animal collecting			1		
Photography				1	
Gardening					
Bird nesting/spotting				3	2

Extras: One Sg sits by fire for 10 hrs.  
 one Gg visits stables for 2 hrs.  
 one Sb visited British Museum for 3 hrs.  
 one Sb & one Ib each spent an hour fighting.  
 one Rb went riding 3 hrs.  
 one Rb went shooting for 3 hrs. and another for 1hr.

Comment: School attendance and meals etc. apart, the total number of hours for any group would not account for all the time available during the week. Nevertheless the dominant position of TV is apparent in all the areas, though this is shared with the radio in R and the cinema in U; it may be presumed that this gives a fair indication of interest and opportunity. Further the differences between boys and girls concerning dancing, sport and jobs accord with our previous findings.

News paper reading appears low in comparison with books but the answer is probably that book reading meant a certain period of time set aside, whereas comics and papers filled in odd moments. When one adds a reminder that the parts of the paper read contain a minimum of written ideas fluently connected, the explanation is strengthened.

On the basis suggested above the activities have been graded for each population into six levels, taking into account the number of





hours recorded and the number in the group. In some cases where the differences in total time spent between activities seemed very great, a gap was created. In this rough manner the results were made more comparable.

TABLE 7.2

Analysis of relative time spent on different activities by boys and girls in the various areas.

SUBURBAN GIRLS:

Television  
Radio, reading  
Cinema, job, clubs  
Indoor games, 'park', homework,  
needlework  
Hobbies, sport  
Dancing, shows, library.

INDUSTRIAL GIRLS:

Television  
Radio, cinema  
'Park', reading, needlework  
Cuttings, clubs, evening classes  
Sport, shows  
Dancing, hobbies, job, homework.

RURAL GIRLS:

Television, Radio  
Reading  
Dancing, sport  
'Park', needlework  
Cinema, hobbies, job, clubs  
Indoor games, cuttings.

URBAN GIRLS:

Television, cinema  
-  
Job, reading, radio 'park'  
Dancing, clubs  
Sport, indoor games  
Needlework.

SUBURBAN BOYS:

Television  
Job, clubs, radio  
'Park', sport  
Cinema, reading  
Indoor games, hobbies, fishing  
Homework.

INDUSTRIAL BOYS:

Sports, television  
Job  
'Park', clubs, cinema  
Fishing, reading  
Hobbies  
Radio.

RURAL BOYS:

Job  
-  
Television  
Sport, radio, reading  
'Park', cinema, hobbies  
Dancing.



LEISURE ACTIVITIES:

Cinema, sports, television  
Job, "Park"  
Reading, radio  
Indoor games, outings  
Fishing, hobbies.

---

Comment: Television viewing is the only activity ranked consistently at the top, with the exception that in the case of the country boys jobs occupy more time. What is watched may differ greatly - thus further analysis might legitimately include "watching" sport or "Cinema". However for those whose parents possessed a set of who had access to one, television viewing appeared the exception and this activity can be thought of as having a unity of its own.

For the boys, jobs were next in importance, with sport close behind; radio and reading were, in general, high among the girls' interests.

The areas showed considerable variation. The cinema attracted the U group, while clubs and radio took up more time in 4 areas in the other areas. Hobbies rank low throughout, but "Park" - a collective term for time spent cycling, walking or counting in open spaces - has a median ranking for all save the A boys where it is lower, and the U boys where it assumes a more significant place. Needlework and other handicrafts appear to have little appeal to the U girls.

Though comparisons with comprehensive school pupils has pitfalls it is interesting to note the predominance of sport for boys in America (DINCK 1937) and for boys and girls in New Zealand (SCOFF). The latter found hobbies and reading following next, and ahead of the cinema.

Whelan (1943) reporting on an English study of children leaving at 14 stated that leisure consisted mainly in cinema, billiards and dancing. Activities most liked in Stewart's survey of secondary modern children were ranked for boys as: Football, cycling, reading, swimming and cricket, and for girls as: reading, cycling, needlework, swimming and walking.



Radio was low for both groups, and cinema and television were not included in the printed lists. These findings suggest that while time involved in activities gives only one aspect of the amount of interest, the proportion of passive to active recreation is of great significance in integrating the interests of adolescents. Similar results to those found in this study are reported by Ballison (1943) in an investigation of non-scientific interests. This showed marked interest in vocation and sport, but little towards crafts, art, religion or music.

In conclusion, it must be noted, in view of the above and preceding facts, that in a follow-up study of factors causing early leaving, the most important was participation in organized extra-curricula activity (THOMAS, 1954).

#### Siblings.

It was thought that some indication of family size might assist in forming a picture of the leavers. The following table shows the distributions of the number of siblings.

<u>NUMBER OF SIBLINGS.</u>				
<u>Sibs.</u>	<u>S. (80)</u>	<u>I. (60)</u>	<u>R. (52)</u>	<u>U. (77)</u>
0	6	9	6	13
1	24	17	12	13
2	16	13	15	15
3	11	11	8	17
4	10	8	6	11
5	5	1	-	5
6	2	-	4	-
7	1	-	1	1
8	-	1	-	-
9	3	-	-	-
10				1
13	1			
15				1
17	1			
Mean	2.875	2.167	2.387	2.532
Mean for total	2.48			



Comment: The especially large families were checked by the teachers and verified. The pattern is essentially the same throughout the areas, though in U there are rather more only children. The total distribution is similar to that given by Stewart (1950) for secondary modern children, and differs markedly from the grammar school pattern.

<u>Percentage of Siblings</u>		<u>Stewart</u>	<u>Hill</u>
<u>Sibs.</u>	<u>Gr.</u>	<u>Sec. Mod.</u>	<u>Sec. Mod.</u>
0	37.8	16.5	12.6
1	42.1	30.4	24.5
2	18.7	21.2	21.9
3	7.4	11.6	17.8
4+	3.9	20.3	23.4

Age.

AGE DISTRIBUTION.

<u>Age</u>	<u>S.</u>	<u>I.</u>	<u>R.</u>	<u>U.</u>	<u>Total</u>
16		1			2
15.11		2			2
.10	1	1			2
.9		3			3
.8					1
.7		2			2
.6	2	1			3
.5	2	4			6
.4		5		1	6
.3	3	4			7
.2	4	6	1	5	16
.1	19	23	2	3	47
15	17	17	7	10	21
14.11	24	21	15	12	72
.10	19	5	14	13	51
.9	12	3	15	14	44
.8	13	4	11	9	37
.7	13	4	10	1	28
.6	6	2	6	7	21
.5	1	1	8	1	11
.4	1		4	5	10
.3	1			4	5
.2	1				1
<u>Mean</u>	<u>14.10†</u>	<u>15.1†</u>	<u>14.9</u>	<u>14.10</u>	<u>14.10†</u>





Comment: All the pupils tested fall within an age range of under two years about a mean of approximately 15 years. The differences in mean and spread being due to several factors, it is best to discuss each area in turn.

The S group included the pilot sample who were tested in the second term of the year. This accounts for the lower end of the distribution. It also contained as did the other suburban schools, several pupils who were completing a fourth year course though eligible to leave earlier - hence the older pupils. This same reason applied to the I group who were, in addition, the last to be tested, making them slightly older on the average.

Few remained in the R and J schools after the term in which they became 15, but several younger children who were to leave in the vacation or early the following year had been included by the heads.

The slight differences in age between the groups appears of little consequence. The few months' advantage of the I pupils is hardly likely to affect the test results significantly though it is as well to note it.

### Intelligence.

To obtain some measure of capacity which would allow a more reliable interpretation of possible differences on certain of the tests, a six point scale was employed. Because of the large volume of testing already decided on, and the unfavourable reactions of some staff members to the use of intelligence tests, it was thought that a rating scale in which teachers' judgments were based on available I.Q. results would be adequate. In nearly all cases the entrance test results were accessible for comparison by the teachers with their own assessments before rating each child. In the case of children for whom results were not



end of the scale, there were fortunately several test scores to use as a basis.

By reversing the procedure the grouped ratings were converted to an I.Q. distribution and the mean I.Q.'s were obtained for schools and areas. The results are given in the table below. The proportion selected for Grammar schools in 1951 and Technical schools in 1951 and 1953 is given by the percentage in the schools in the respective counties, thus providing a more adequate interpretation of the means.

AVERAGE MENTAL ABILITY

Based on scale of 6 pts. (Scale rating decided by I.Q. &/or teacher's judgment)

E D B A A+

Scale 79-,80-9,100-1,110-9,120+

SCHOOLS	Mean IQ	AREAS	Mean IQ	1953 % in Gr/Tech
G	95.8	SUBURBAN (124)	96.83	29.4 (Midx)
Su	98.3			
M	97.6	INDUSTRIAL (109)	96.83	21.7 (Essex)
CE	98.2			
Mc	90.7			
W	92.2	RURAL (95)	93.64	22.8 (Som.)
HE	95.5			
SWC	94.3	URBAN (95)	94.95 95.70(sd 11)	26.3 (L.C.C.) 25.0
Is	95.0			
H	92.8			
		Total (419)		

Analysis of Variance of Area Differences:

Total Mean = 3.05	df	M.Sq. (V)	F	Sign.
SS between means = 9.239	3	3.079	2.564	-
SS within groups = 403.52	415	1.201		
(leaves	.05	2.63		
	.01	3.33)		

t-test between I & R	N	Diff	sd	t	Sign.
	100	3.19	1.63	1.957	(Borders .0
	95				
t-test between S & R	120	3.19	1.319	2.418	.05
	95				
t-test between S & R	120	2.78	1.379	2.016	.05
	95				

Comment: Analysis of variance among the areas means revealed an F ratio bordering on significance at the 5% level. Further analysis indicated that S and I are slightly superior to R, while S is in addition slightly superior to U. The differences



are such as one might expect; with the country sample rather lower and the suburban group maintaining some superiority in spite of having more of the able pupils selected out.

No difference was found between boys and girls.

Girls (139) I.Q. 95.3 Boys (230) I.Q. 95.7

The total distribution reveals the following percentages in the various ratings:

A+	$\frac{N}{4}$	$\frac{\%}{1}$	<u>Approx. IQ Limits</u> 120+
A	31	7	110 - 119
B	110	26	100 - 109
C	147	35	90 - 99
D	90	21	80 - 89
E	37	9	70 -

The numbers in B and C total 247 or 61% of 75% of the age population (using the average percentage selection of 25%)

This indicates that 46% of the age groups are rated

average (90-110 SD 15) as against the hypothetical 50%.

This serves as a check on the validity of the group ratings.

The Mean I.Q. for the sample obtained by this

random cut method agrees closely with the figure of 95 which Dent (1953) estimated from figures shown to him by heads, and with the mean I.Q. of 94.3 (sd 11) in a study of 235 modern children by Hood (1951).



## VIII.

### TEST RESULTS.

"Performance may be thought of as Ability + Conditions.  
Ability may be thought of as Capacity + Training."  
(Greene et al. 1954.)

### SUBSTANTIATION.

As the allocation of testing times by the headmasters varied considerably, the order of presentation was altered to meet each specific situation. Some allowed a whole morning or afternoon, or even a full day, while others preferred to set aside periods and double periods over several days. Most of the children favoured doing the tests consecutively without breaks for other lessons and this was attempted as often as possible.

Though containing some material connected with school work the tests were received extremely well; the pupils expressing a great deal of pleasure in 'finding out about themselves.' This desire for self knowledge and self evaluation was manifested in all of the schools, not only by the pupils but also by the staffs. A number of teachers and headmasters went so far as to ask for sets of the papers with the intention of further testing or of using them as teaching material.

Save for a few of the more straightforward tests which were given by a teacher in one school, all the tests were administered by the writer. In most cases no other adult was present. Where a teacher or headmaster did remain for certain parts of the procedure it was because of interest and not for the formal duty of keeping order - though two schools did allocate staff members to be on hand in case of problems.

The discipline of the classes varied a great deal but the feeling of co-operation in a large enquiry coupled with self-interest governed behaviour during the actual testing.





In the spell between one test and the next, while the slower pupils were catching up, restlessness often became rife and expressed itself in loud provocative talking and physical interference with immediate neighbours. It was evident in certain schools that the writer's normally effective approach to such a situation - talking out the problem with the group at their level, indicating respect for their opinion but implying an appreciation of them as responsible persons - evoked a response which seemed to demonstrate lack of faith of the pupils in themselves. Individually the children were friendly and likeable; often one who was a trouble-maker in class made genuine personal approaches or gave thoughtful assistance when on his or her own. In a group there appeared to be a necessity to belittle authority and respect in a manner that denied respect of themselves. After such experiences it was understood why some teachers looked in horror when informed that the writer was to take groups of 30-40 leavers alone for a whole morning, or day. It was exhausting, but provided the pupils were occupied - a state of affairs that seemed to satisfy a real need for them - they were manageable, and in spite of the contention of many teachers they were quite willing to work and work hard. Perhaps the reason was that this evaluation touched specific needs or particular interests. Nevertheless no complaint could be made of the concentration displayed - a fact so noticeable that teachers commented freely on it, often with frank amazement.

Though the interest of some children flagged a little about a third of the way through the testing, it never failed to pick up again; and after the programme was completed there were many requests for continuation, for results, and for discussion of the test material.

All this is reported to illustrate that the tests were not given in an inhibiting formal atmosphere. The children were interested, co-operative and attentive, and the results



therefore should provide a fair assessment of their performance. There were some critics among the teachers who felt that the pupils would not feel the need to do well because no-one was concerned about their individual results. However the knowledge of anonymity - which the pupils accepted even though their names were appended to the sheets - might equally well have allowed more valid results on many of the instruments, and indeed the desire to perform creditably was noticeable throughout. Children had often to be sent from the room for fresh air during the break periods when they wished to continue with the work. Children who were late or missed a certain test often voluntarily asked to finish the particular tests after school in their own time.

The knowledge that other schools were involved in the enquiry provided some competitive stimulation, while the fact that plenty of time was allowed in which to complete the tests made them feel that the assessment of their efforts was fair.

The majority of tests being read out item by item meant that they completed their tasks about the same time. With the other tests such as Arithmetic, English and the Coach Guide tests, they worked at their own speeds but it was clear that genuine efforts were being made to do what they had been asked, namely to work just as well as they were able.

There was very little evidence of copying as observed either in the classroom or in the results. It is thought that this was an indication that they appreciated that true individual results were wanted even if it meant missing out certain items or marking an answer they were not sure was correct.<sup>1</sup> There was nearly always chatter<sup>1</sup> of some kind going on,

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1. The staffs informed me that what the writer often imagined was bordering on excessive noise was merely normal classroom procedure. One is forced by experience to accept this opinion.



though often it was due to a prevalent habit of working neighbours it usually assumed the form of an argument about an attitude or opinion; almost invariably ending in mutual disagreement. The children were in fact continually amazed at the variety of opinions and attitudes expressed by classmates and even close friends, in the short discussions that occasionally acted as buffers between tests.

Because of the above facts, the writer is of the opinion that the performance of the learners is a reliable indication of their level in so far as the tests used were reliable instruments. This conclusion is substantiated by the agreement of staff members at schools where discussions were held on the results; even individual results appeared to them satisfactory. As the evaluation depends upon group and not individual performance, it is maintained that the test means obtained are fair estimates of the average levels of secondary modern pupils in the schools tested, within the limits of the separate tests. Further it is suggested that as these schools were chosen as average schools in the various areas, there is some justification for holding that the results, in spite of the small samples, give more than an indication of the average levels one might find in those areas, and, in so far as these areas may be representative of districts elsewhere, within these other areas also.

#### TABULATION.

Initially, because of the wishes of teachers and headmasters concerned, school means were calculated for each of the tests. These do not concern us here and are therefore not included. However these results, weighted according to the numbers contributing and combined within areas, gave arithmetical checks on the area means obtained from direct computation of individual results. The means for boys and girls in the separate schools were also ascertained and combined to give cross checks with area sex means. A further calculated from the area figures when



means were extracted from grouped data as by products of the examination of the significance of sex differences.

The results presented below have been analysed for the statistical significance of area and sex differences, the estimations of which are found in tables 8.2, 8.2a and 8.3 at the end of this chapter. Where nonsignificance has been found the figures for the areas or sexes have been grouped into single means. It is felt that the sample as a whole has sufficient homogeneity to permit this as a justifiable practice.<sup>2</sup>

The tests are discussed in the order of the arbitrary code numbers allotted to them. The letters S, I, R and U represent the areas, B and G the sexes, and T the total sample. The distributions of the groups are presented in the figures that accompany the comments. Where differences are not statistically significant only graphs of the pooled results are included.

Test 1A Social Behaviour (Ought), Range 0-50.

	S	I	R	U	B	G	T
N	141	97	39	81	218	190	408
Mean	42.45	43.47	42.24	41.93	41.98	43.17	42.54
SD							4.11
					G	B <sup>3</sup>	

While there are no significant area differences, the girls show slightly more knowledge of correct behaviour than the boys. The average level indicates a substantial understanding of the correct behaviour in the situations presented though it is somewhat lower than the finding of Crockett (1940) for her Central School sample (Range 43-50, Mean 47). The items appear well within the grasp of the pupils and in the main relevant to their backgrounds.

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3. superior to, i.e. difference is statistically significant in favour of first group (s) mentioned.





The small standard deviation indicates a bunching at the upper end of the scale - a basic requirement if the score is to provide a practical comparison with likely behaviour in the same situations. (See Figs. 1a, 1b.)

Test 13. Social Behaviour (Likely). Range 0-50.

	S	I	R	U	B	G	T
N	131	103	81	66	214	167	381
Mean	24.42	23.25	24.95	25.03	22.37	26.97	24.33
SD							3.39

G B

Again no significant area differences appear and the level of likely behaviour (or at least the level that pupils are prepared to reveal as likely) is consistently well below the level of the 'ought' results. The actual difference between the means is 16.16 making a very significant gap between the two types of response. This in itself is a justification of the test for it is obvious that this lower result has got much nearer to the probable behaviour and represents the compromise reaction or worse as the more likely action. The wide spread however demonstrates the variety of response and warns against individual or even small group prediction from this mean.

Crocket's results are similar to these (Central School mixed; N = 129, Range 10-44, Mean = 23.4, SD = 7.2). It seems that this instrument with attention to internal construction and item analysis may be a useful procedure for studying possible behavioural reactions.

A significant and marked sex difference shows girls superior to boys on the test. Though the difference is unmistakable one must not jump to the conclusion that the fair sex is superior in actual behaviour (though adolescent studies suggest this may be so (Hurlock 1955),



as the higher score may be due to some reticence about revealing probable reactions.

Comparisons between the results on the two aspects of this measure of social behaviour are graphically demonstrated in Figs. 1a and 1b.

Test 2. Attitude to Good workmanship. Range 0-45.

	S	I	R	U	B	G	T
N	152	106	94	92	233	203	443
Mean	31.39	30.93	29.34	30.17	29.97	31.31	30.59
SD							4.77

I & S R G B

Each group, area or sex, centres round the 'sensible' rating on the scale and ranges from 'silly' to 'very sensible' with the distributions fairly symmetrical about the means (see Fig.2). The overall variance between means though small is significant; the between-means analysis indicating a slight superiority of the industrial and suburban groups over the rural. The girls show up a little better than the boys but the difference may be partially dependent on bias in the item selection. There may, of course, be a rather better attitude among girls but a conclusion in this direction would depend initially on eliminating other factors by item analysis.

With the differences so small for the present purposes it is probably justifiable to treat the total pattern as a sufficient guide, but as these variations may become more significant when the distributions are matched against the teachers' standards the groups will be treated as specific and separate.

Test 3. Prejudice. Range -20 to +20.

	B	I	R	U	B	G	T
N	151	106	94	66 <sup>4</sup>	226	191	417
Mean	1.44	2.20	-0.69	0.32	1.13	0.79	0.97
SD							4.67

4. One headmaster objected to this test on the grounds that all racial prejudice had been 'cleared up' in his school and he did not want this to create more trouble!



The general picture represented by these means is one of uncertainty but analysis of certain items shows many decided opinions both prejudiced and unprejudiced.

Both the S and I groups show less prejudice than R, while U though perhaps not as prejudiced as R is nevertheless more intolerant than I. The differences in no cases are large, and the order is as one might have postulated on sociological grounds, bearing in mind the previous descriptions of the areas. There is no significant sex difference and the distributions are again of the fairly normal shape one expects with such an attitude scale (see Fig. 3).

Because of their bearing on current problems and of the additional evaluation thus available certain items were analysed for internal distribution of responses and the results are included below in Table 8.1.



ITEM ANALYSIS OF PART OF TEST 2 (PREJUDICE) Using samples of 100 boys & 100 girls chosen at random but with weighting proportionate to the 4 areas.

Item	SA	A	U	D	SD	±	Q	-
3. Susan thought children should be allowed to choose their own religion rather than just Key having to follow their parents.	G: 16	33	15	28	8	49	15	36
	B: 14	41	14	21	10	55	14	31
	+	+	0	-	-	52	14½	33½
4. Sally believed coloured people were not as bright/ at learning as white people.	G: 6	7	29	38	20	38	49	13
	B: 2	5	18	43	32	43	50	7
	-	-	0	+	0	40½	49½	10½
9. Vera believed that it would be a good thing if sex education was given at school.	G: 37	40	13	9	1	77	13	10
	B: 49	29	11	7	4	78	11	11
	+	+	0	-	-	77½	12	10½
13. Ken believed that in general women were as intelligent as men.	G: 49	46	2	0	3	95	2	3
	B: 26	42	13	9	10	63	13	19
	+	+	0	-	-	81½	7½	11
15. Max thought that religious instruction should not be compulsory in schools.	G: 15	23	14	29	19	38	14	48
	B: 18	19	25	27	11	37	25	38
	+	+	0	-	-	37½	19½	43
16. Marion agreed with the use of the death penalty for persons convicted of murder.	G: 30	40	19	4	7	11	19	70
	B: 49	27	9	9	6	15	9	76
	-	-	0	+	+	13	14	73





Item	SA	A	U	D	SD	+	0	=
17. Arthur thought G: 9		23	25	30	13	43	35	32
the saying "Spare								
the rod and spoil B: 9		18	25	23	25	48	25	27
the child" was very								
true and that it	-	-	0	4	+			
should be applied								
more at home and								
at school.						45	25	29
<hr/>								
18. Jean said that G: 4		13	44	28	6	34	-	66
though people may								
scoff the study B: 7		26	31	25	10	33	-	61
of the stars by								
heroscopes can	-	-	+	+	+			
give good advice								
about yourself						35		65
and others.								
<hr/>								
20. Peter said G: 10		17	27	26	20	46	27	27
that coloured								
people just did B: 8		13	17	23	36	63	17	21
not have as high								
a standard of morals	-	-	0	0	+			
as the English.						54	32	24

\* + and - reversed where appropriate according to key.

Comment: The items concerned with religion (2, 15) illustrate a tendency to reject parental pressure in favour of personal choice, and doubt as to whether or not religious instruction should be compulsory. The majority are in favour of sex education as part of the function of the School (9) and believe that women, in general, are as intelligent as men (13) - though some boys are dubious about this. The reaction to coloured persons (as assessed by 4 and 20) indicates a liberal measure of tolerance and respect but this is less true for the girls with reference to morals.

In view of the proposals to abolish capital punishment, it is to be noted that the move is not



favoured (16) by the section of the community represented here - and one may assume that this attitude derives largely from that of their parents. This finding agrees with current news indications of a large body of the public advocating retention in spite of the rational conclusions of the recent Commission.

#### Widespread use of corporal punishment (17)

set with similar proportions expressing approval and uncertainty, but almost half viewed this with disfavour.

Belief in the efficacy of horoscopes or in the possibility of astrological prediction was admitted by two thirds of the sample. The girls' greater interest in newspaper horoscopes had suggested that their belief in such advice would be appreciably greater, but it appears that both sexes are equally superstitious in this respect. The figures bear out Hall's statement (1949) that "There are signs - the popularity of palmists and astrologers and the sales of lucky charms for example - that superstition is on the increase."

#### Test 4. General Knowledge. Range 0-60

	S	I	R	U	B	G	T
N	154	106	92	95	240	207	447
Mean	34.22	33.40	32.03	29.66	34.36	30.62	32.63
SD							7.492

$$S, I \& R > U \quad S > R \quad B > G$$

As such a test normally favours boys a substantial and significant sex difference was expected and found. While the ranges for boys and girls are similar, the means vary by about 4 points.

Interest and background providing much of the stimulus for the seeking out and retention of information in many fields it was not surprising to discover the urban group inferior to all the others, and the suburban



somewhat better equipped than the rural.

Such a test can never be entirely adequate because although objectively marked it leans on subjective choice in its construction. It may be argued that this would presumably place the U group at a disadvantage because of their unique environmental experiences, but the great majority of the items, vetted by teachers, were facts that the children are taught or should have some knowledge of by the age of 15.

The test scores spread from 13 to 54 indicating that the items covered the range of ability satisfactorily, allowing sufficient easy and difficult questions. As with the other attainment tests a negatively-skewed distribution was aimed at in selecting items. Fig. 4 illustrates that though this was attained for the boys, a more symmetrically-shaped curve resulted in the case of the girls. Finer analysis of item content would be necessary to obtain a general knowledge test significantly skewed for both sexes.

Test 5. Best Reasons. Range 0-20

	S	I	R	U	B	G	T
N	152	107	93	93	242	203	448
Mean	13.57	12.09	11.09	12.13	12.53	12.76	12.63
SD							2.24

$$S \ \& \ I > U > R$$

As the questions used are patterned on items from intelligence tests one might expect that the small variation in the area mean I.Q.s would be connected with similar variations in this test. The area analysis fits in with this expectation with the S & I groups scoring higher than U, which in turn shows up rather better than R. However having regard to the small standard deviation the actual differences are greater than might be anticipated on such an assumption, and the emotional factor involved



in many of the items may account for this.

It was supposed in the item construction that ability to reason out the correct answers would depend in part on previous knowledge which all pupils might have been expected to acquire by the age of 15 years from social background or school, and in part upon certain principles basic to sound reasoning. It was the latter aspect that the test attempted to measure. Unfortunately there is no way of checking on the possession of the basic information underlying the items and this may explain area differences at least partially. On the other hand, if the facts are truly fundamental the non-possession of them is as much a hindrance to adequate reasoning as ignorance of the principles. The test results, then, must be judged with these factors in mind.

The scores ranged from 0 to 19, with the distribution negatively skewed as planned for (see Fig. 5). With only one pupil at each of the extremes, it would appear that the procedure of visiting schools, talking to several poor and good pupils, and surveying their work, constructing items to cover the ability of those pupils, and finally submitting these to the scrutiny of a head and his staff, is a satisfactory method of ensuring an adequate range for an unpretentious measuring instrument such as this test. Other measures in the evaluation battery bear this out.

Test 6. Arithmetic. Range 0-36.

	S	I	R	U	B	G	T
N	151	106	94	94	240	205	445
Mean	21.06	22.31	18.95	18.91	21.44	19.46	20.53
SD							7.22

S & I 7 R & U B 7 G





With pupils working at their own rates, the time taken to complete the arithmetic examples varied considerably (some continuing for up to an hour at their own request). Except for a few who omitted either the fraction or decimal items, the pupils attempted all the first two sections covering mechanical calculations and terms and relations. The problems, however, were often missed out even after long periods had been spent on them. Yet the operations underlying these items were consistently simple and the statements were competently read by a group of backward 13-year old boys in a school subsequently visited.<sup>5</sup> The examples were in no case more difficult than those in 11+ selection examinations most of which one might have thought the average fifteen years old would be able to do.<sup>6</sup>

The typical score, from a brief scoring of the papers, would actually include only one to two marks from section C.

The distribution showing little signs of skewness, ranges from 1 to 36 with about 15 gaining full marks (See Fig.6).

The J and I groups are superior to the M and U, with mean differences of the order of 2 to 3 points. Factors to be considered in the interpretation of the variation are vocational interest, curriculum bias, and home encouragement.

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5. This class consisted of 32 boys, 17 of whom had I.Q.s under 70 as assessed by at least two tests. The work they were doing was comparable to much of test material and, judging from his past experience with such groups, the teacher estimated that many of them, at the time of leaving, would be able to get up to 26 of the 36 items correct.

6. As noted earlier, however, a decline in arithmetic (as assessed by speed and accuracy) has been pointed to by Sutherland (1961) and others, occurring over the years in secondary schools.



That boys do rather better on such a test, especially at this age level, is to be expected, and is in accordance with general findings in most evaluation studies.

Test 7. Spelling. Range 0-26.

	S	I	R	U	B	G	T
N	157	107	95	91	238	107	145
Mean	15.57	16.36	14.83	14.09	14.23	17.15	15.05
SD							6.73

I-7 S & U G > B

The distribution of scores reveals a general negatively-skewed curve with several interesting features (see Fig.7). Essentially the curve has three modes. One occurs at the lower end of the scale due to an appreciable proportion scoring less than 5 (14.4% just over 3% failed to score at all). Information obtained from teachers in the preliminary stages of the project suggested that a few would have trouble in spelling any of the words but such a significant percentage was not anticipated. For present purposes this bunching provides useful knowledge and does not affect the evaluation since the assessed standard is obviously well above this level, if only because the list was constructed with words that teachers thought the majority of pupils would be able to spell.

The bimodal feature in the upper reaches of the scale is more serious. Its effect on the final evaluation will depend on the placing of the standard relative to these aspects of the curve. This double hump suggests the presence of two groups. Determination of the composition of these "groups" would require more intensive investigation than can be attempted here but it is possible that the predominance of one spelling technique over



another could produce this disparity.

As far as can be seen from Fig. 7, these humps are present in the distributions of both boys and girls, so that although there is a significant and quite large differences between the sexes (as indeed norms of spelling tests generally indicate) this is not the factor causing disjunction of the sample. The distributions in separate areas show further that these groups are not producing this feature, because the tendency is noted in the centre of each.

Area analysis discloses that I is superior to II and III, even though for statistical significance the differences require to be considerable because of the large standard deviation. Spelling, when not taught specifically, is greatly conditioned by home background and the need for correct use of words, hence the variation in levels is not unexpected.

In case it may be argued that, although the items were selected on the grounds of frequency in word lists, the words used do not give a fair indication of the spelling ability of the pupils, some examples from their diaries are given below. These are words used by the learners to describe their own activities in their own way, and are therefore their own choices. Care has been taken in the first grouping to exclude misspellings by pupils with lower than average intelligence (i.e. below I.Q. 90). This means that the following attempts are by average pupils at 15 years of age, misguided in the use of a phonetic approach, adding extra letters, and still prone to letter reversals in simple words, etc.  
e.g.: disgust (discussed), cleact eggs, herd (heard), super (supper), reid (read), lissen, lisen (listened), drest, cless (clothes), erens (errands), add (had),



chand (changed), furnichur, penchor (puncture), pitchures, washo, parokt, shoads, whont, whatch, worat (wont), berth, solfo, seecling (ceiling), asicil, sunbrant, o'clock, whased (washed), racy, palytino, agl n, nottleweck, woshed, listerns.

Among the duller pupils, even worse misspellings frequently occur: sawvigages (sandwiches), willose, wilos, wrilco, wicholis (wireless), chicet, kekito, ericet (erickot), grill (girl), ploycnd, Catlick, Prolisen.

Test 3A. Moral Judgment (Ranking). Range 33 - 0.							
	S	I	R	U	B	G	T
N	30	107	94	90	198	175	371
Mean	10.04	10.10	30.55	30.34	19.73	20.26	30.01
SD							4.61

#### I R & U

This test had extremely low reliability; such that the hypothetical validity coefficient based on the square of the split half correlation figure approaches zero. Retaining it as a measure of moral judgment on these grounds cannot be justified. Relative agreement among the items and between the sexes is likely to be due mainly to chance factors. The general distribution of scores is presented in Fig. 8A.

That the same items used in a different way may make up a reasonable test (see below) suggests difficulty on the part of the pupils in tackling the task of ranking consistently and/ or an unsatisfactory key.

#### Test 8B. Moral judgment (Rating). Range 72-0.

	S	I	R	U	B	G	T
N	154	107	93	90	236	208	444
Mean	8.37	7.22	8.12	8.99	8.80	7.40	8.14
SD							5.59





Analysis of variance applied to the area means gives a low F-ratio and the null hypothesis is retained. In spite of this an investigation of the difference between I and U was carried out indicating statistical significance at the 5% level. There are definite grounds for criticising the approach<sup>7</sup> but as we are dealing only in probabilities it is worth noting.

A difference in favour of the girls is also found to be significant but like those between means it is small.

The distribution is negatively-skewed in the direction of maximum score (Score) as was hoped for (see Fig. 23).

The intention was to use this test to interpret comparisons on the rankings in the previous test. It is possible that two rank orders could be the same in Test 2A yet represent different levels of moral standards; there could also be agreement with the accepted key yet divergent standards of judgment. The unsatisfactoriness of the ranking, as applied, made this step impracticable.

Test 2.	Design	Discrimination. Range 0-40.					
	S	I	R	U	B	G	T
N	154	105	93	85	240	197	437
Mean	23.32	23.95	20.40	21.39	22.2	22.78	22.47
SD							5.16

S & I \ U > R

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7. McJannet (1955) says "Obviously, the variance method requires less computation, and furthermore it provides an overall test of significance which is not subject to the fallacy inherent in singling out the comparison involving the largest obtained t or CR; a practice which is likely to capitalize on chance differences. After and only after it has been found that the overall F is significant can safely use the t technique to test the significance of the difference between any 2 of the group means." p. 259.



With differences of approximately 2 to 3.4, a pattern of area variation emerges with the city samples all better at such discrimination than the country group, and within the city, the I and S pupils superior to the U. While the explanation of the level of the urban group relative to the other city children might be approached via comparisons of social environment including interests, values, attitudes and experience, the poorer performance of the rural sample is more difficult to interpret.

Mean score comparison favours the girls but not to the extent of statistical significance. However the distribution of the total sample shows a slight bimodal feature caused by the combination of these two groups (see Fig. 9). There is also a minor mode lower down the scale which occurs at the same place and to the same extent in each sex distribution; the explanation of this is obscure.

As used the modified art test spread the pupils over a cut its entire range. The method of circulation round the room to judge the cards attached to the walls worked satisfactorily. With the larger school groups the pupils were divided in smaller units of about a dozen to allow a maximum of free movement. Meanwhile the other children were variously employed elsewhere under the care of a teacher.

Test 10.	Attitude to Education.				Range			6-10.3
	S	I	R	U	B	G	T	
N	151	106	94	92	240	203	443	
Mean	7.15	7.05	6.28	6.73	5.89	6.81	6.86	
SD								1.15

S & I 7 U 7 R



Previous surveys of the attitude of secondary modern leavers (e.g. Hood 1951) have indicated a dissatisfaction with school. As has already been seen (Chap.7) approximately a sixth of the present sample have no interest in school work, a third do not like school, and two thirds think that four years of secondary education is sufficient for their needs. Attitude to education, though affected by such opinions, covers a broader field. Interest in evening classes, opinion of parents towards schooling, and the reasons given for leaving all make their contribution towards this general attitude. It might be expected then that variations in the above means will bear some relation to differences between the area already noted.

Analysis shows no significant variation between the sexes of boys and girls, but indicates that S & I have a more favourable attitude than U, and that the city sample as a whole favours education more than the rural.

Generalising the trends previously indicated it is possible and convenient at this stage to summarise the general patterns that have emerged. Of the suburban group more are interested in staying on at school and these have substantial parental backing; a higher percentage are going on to some type of fulltime education; in general they benefit from a superior educational environment. The industrial sample, on the other hand, while seeing school as more of a tie, feeling a greater need to support the family and knowing good jobs that are at present available, continue more in the educational field outside of the school. They show greater attendance and prospective attendance at evening classes.

Urban pupils feel, in the main, that they have learnt enough at school and are eager to start 'living'. Few would like to stay on, in fact the parents are more willing for continued education than are the children. About a quarter



intend to do fulltime (apprenticeships) education and/ or evening classes when they leave, and a third have a 'good job' waiting for them.

In the rural area, pupils are not keen to stay on at school nor do their parents encourage them. Jobs and household chores occupy a large amount of their 'leisure' time, with the emphasis on interest rather than gain, or service under compulsion. Even with curally biased courses, school education is seen less in the nature of an assistance to future vocation than in the towns.

The area means border on the item with scale value 6.4, indicating an agreement that there is a certain amount of worth in education. The average levels of the S and I groups are rather nearer the statement that 'homework is a necessary part of education', though in fact only in one of the eleven schools in the study were pupils given homework.

The scale can be sectioned into five ratings of favourability following Campbell (1950).

- 0.6 - 3.59 very unfavourable
- 2.6 - 4.59 unfavourable
- 4.6 - 6.59 neutral
- 6.6 - 8.59 moderately favourable
- 8.6 - 10.3 very favourable.

The slightly favourable attitude of the city children and the neutrality of the rural, can be compared with the favourable attitudes of Glessey's (1945) Grammar School pupils (mean 8.1) and their parents (8.5) on the original scale and the similar findings of Campbell.

Test 11. Knowledge and skill for seeking information.  
Range 0-24.

	S	I	R	U	B	G	T
N	154	107	94	87	236	204	442
Mean	14.81	13.72	12.87	12.75	13.87	13.77	13.82





It seems reasonable to assume that where the overall possession of library tickets is greatest more knowledge of how to use a library is to be expected. Though one may be readily conversant with some cataloguing techniques and information sources from school library work, this does not necessarily carry over to the wider field of the public library without special direction. Some modern schools are tackling the problem, but this was not an important feature in the work of the eleven schools sampled. It is not surprising therefore to discover that the suburban group whose library membership far outstrips that of other areas gains the highest mean score. Of the differences between this group and the other three, only that with the rural sample is statistically significant, indicating perhaps that, as suggested, membership is not enough by itself. The inferiority of the country children is quite marked and, when linked with the low percentage possessing library tickets, would appear to depend on the availability and accessibility of relevant facilities.

The distribution of scores is presented in Fig. 11.

Test 12. Use of Tables. Range 0-10.

	S	I	R	U	B	G	T
N	154	101	93	90	234	204	138
Mean	4.81	4.60	4.37	4.34	4.36	4.34	4.6
SD							2.5

Though teachers thought that the tasks involved in this test could be tackled competently by their pupils it was evident in the results that many children had little idea how to interpret sets of tables. There was extensive interest in this measure, it being obvious that many of the pupils



had had no experience of timetables or direction booklets. Indeed they were amazed to find that though the Green Line Guide cost sixpence, most of the London Transport guides were free. The children readily agreed that travelling would be easier if one did not continually have to ask questions, and eagerly inquired how to 'work out' the times and fares. It would be interesting to know how permanent was this newly-acquired knowledge of procedure, and what generalising value a brief practical lesson would have.

Area differences, though greatest between S and U, were not statistically significant. Boys showed some superiority over girls, though the pattern of scores showed similar distributions in each case (see Fig. 12). The minor mode demonstrates the inability of 7% to score at all and the guess or single mark (e.g. from the bus route number question) of a further 10%. It was appreciated that the 'all or nothing' aspect of the easy examples would cause such a hump at the lower end of the curve but it was not anticipated that it would be so large nor that the remainder of the scores would fall into a fairly symmetrical distribution.

As the questions involve normal interpretation of a booklet presumably designed for the use of the 'average' citizen, even without an assessment of standards an enquirer might be alarmed at an average mark for the sample of under half the test total.

Test 13. Use of Index. Range 0-16.

	S	I	R	U	B	G	T
N	154	101	93	90	234	204	438
Mean	10.74	10.97	10.86	9.67	10.60	10.58	10.59
SD							3.99



It was thought that the use of an instrument measuring a fairly specific objective would add to the field covered by Test 11, and as material was available in the Guido Becklot this test was, as previously noted, separately designed. A negatively-skewed distribution was produced as planned but as this was not the case with Test 11 the results are presented by themselves rather than as additional weighting to that test.

No area or sex differences were significant but it was noted that the urban group was consistently lower in comparison with each of the other groups. The distribution is presented in Fig. 13.

Test 14. Comprehension of General Information. Range 0-14.

	S	I	R	U	B	G	T
N	154	101	93	91	234	205	439
Mean	7.18	7.12	6.72	6.68	6.72	6.80	6.75
SD							1.92

S I & U, R    S, U

Comprehension of this type, even when using material presumably written at a level of understanding appropriate to the average citizen, involves a considerable measure of intelligence, and the results show considerable agreement with the area differences according to intelligence assessments. In understanding the general information and elucidating the correct answers to the questions, the S and I groups showed a little superiority over the U group; the S-U difference being just significant at the 5% level. The R group was, on the whole, markedly inferior to the city samples.

The differences may be somewhat greater, however, than one might have expected had intelligence been the only factor operating. Reading difficulties may have influenced the



results because no oral assistance was given with the instruments based on the Coach Guide; it being taken for granted that what was required here was a measure of ability to deal with the material as constituted. Inadequate experience of this sort of exercise on the one hand and previous information providing the correct answer on the other, might also have contributed to the differences. It was disturbing to discover how many children were ignorant about telephone dialing technique. With a minimum of such work being attempted by the school such acquisitions are left to the chance advantages of home and community background.

The distributions, almost covering the test range, are fairly symmetrical and bell-shaped (see Fig. 14).

Test 13. Use of Maps. Range 0-10.

	S	I	R	U	B	G	T
N	151	103	94	83	338	201	439
Mean	6.56	6.08	7.06	6.78	6.84	6.30	6.60
SD							1.99

$$R \ \& \ U > I$$

$$B > G$$

This is one of the only tests in which the rural group figures as significantly superior to other areas. Further than that it is one of the only tests in which the U sample is not inferior to the other city groups. Both the R and U groups differ significantly from I and in the case of the rural area, the advantage is considerable having regard to the test range.

One might have thought that the area variations would have shown the trend exemplified in the other tests; with environmental and experiential advantages favouring the suburban and industrial groups. Unfortunately no detailed information is to hand concerning the precise programmes of social studies carried out in the various schools nor about the amount of parental access to maps. It is difficult





to think of other factors that might be relevant. The rural setting of the problems might somewhat handicap urban children; on the other hand Guide and Scouts along with other similar groups are more numerous in the suburban districts.

In noting that boys are slightly better at this task than girls, it must be recalled that boys made up a sizeable majority of the urban sample. But as the industrial sample contains an even higher proportion, this factor cannot account for the differences. Thus a satisfactory explanation is not forthcoming, save in the general terms first mentioned above.

In spite of its brevity the test was satisfactory in spreading the scores over its range and providing a negative skewing (see Fig. 15).

Test 16. English Usage. Range 0-36.

	S	I	R	U	B	G	T
N	152	107	94	90	237	206	443
Mean	16.94	17.18	15.96	14.58	15.21	17.14	16.10
SD							5.70

$S \text{ \& } I > U$

$G > B$

As in the other English test (Spelling) the R and U groups do not show up as well as the other city samples, though here it is the urban children who are worst, with a mean significantly below that of S and I. Local speech habits and poor pronunciation were effective causes of low scoring in English, though dialectal variations of a marked nature were not present in the speech of the pupils tested nor indeed should these have affected the results unless combined with the aforementioned difficulties.

Commercial courses with additional emphasis on English were more common in the area doing well on the test

and one would be justified not to read into this a



positive connection - qualified only with reference to the standard of the teaching. As girls usually score somewhat better with such verbal material it is difficult to estimate how much the significant sex difference is due to variations in curriculum, interests or aptitudes.

A tendency towards negative skewing is noted in the curve of the girls' scores but the boys' distribution approximates more closely to the normal curve (see Fig. 16). Once again the scores are well spread over the possible range. Test 17. Letter of Application. Range 0-36.

	S	I	R	U	B	G	T
N	133	105	91	91	235	207	442
Mean	16.12	16.53	16.30	13.53	14.46	16.99	15.65
SD							5.14

$$S, I \& R > U \quad G > B$$

In this practical test of written expression the urban sample falls significantly below the other three groups. This may be explained by the fact that commercial work for the girls (which probably explains their superiority over the boys) and the need for such correspondence for boys entering certain types of jobs were not important features of the urban schools tested. Besides this the home advantages of the other groups would no doubt make for greater ease in setting out and writing letters.

Many attempts omitted vital information requested by the advertiser and few included the business address - some lacked an address for reply or occasionally even a signature. Construction and punctuation was for the most part very faulty and in accord with the poor showing of the samples in section C of Test 16. The letters ranged from very acceptable, well-worded, polite requests to indecipherable or unintelligent.



scrawls, with the majority distributed on a fairly normal curve between those extremes. It was noticeable that offers of good service and hard work were more frequent in the letters of country children while the demands for a job and for high wages came predominantly from urban children.

Test 18. Maturity of Educational Choices. Range -40 to +40.

	S	I	R	U	B	G	T
N	153	106	94	90	243	201	444
Mean	3.75	3.17	-0.66	0.92	1.39	2.90	2.10
SD							6.80

S & I > R & U      G > B

This measure is only a factor in the direction of emotional maturity but does give some indication of personality traits admired by these children and the topics which cause them worry and concern. It is generally considered that girls mature earlier than boys emotionally as well as physically (Hurlock 1955, Wall 1948) and the sex difference in the above results though small is statistically significant. This agrees with the findings from the Pressey Interest-Attitude Tests, wherein differences between boys and girls were unimportant at 13 years but increased slightly over succeeding years to give the girls a clear advantage at 16. The abbreviated and modified items used here appear to give a pattern similar to that of the original test.

Area means show a definite break between S and I on the one hand and U and R on the other, with the difference between the city and country samples quite large. The farm child develops a mature realism, knowing life as he sees adults living it, but the demands of school transport and home chores severely limit his participation in social activities with his peers outside the classroom. This, and



the lack of pressure for rapid development often present in cities, may explain the low marking of the rural group. In addition the fact must be considered that the adulthood to which the rural child serves a natural apprenticeship may commit him to a different and a more restricted set of values. The low score on the prejudice test tends to support this.

In the testing situation the rural children were much easier to handle and somewhat quieter, but at the same time they appeared rather younger than their comparable age-mates in the city. The writer's own experience of similar and older country youth has led him to believe that they appear more mature in their own setting than do town children but that the adults in a rural community appear, in general, less mature than their town counterparts.

The scores ranged from +20 to +27 and were distributed fairly symmetrically about the means (see Fig. 18).

It appears that, on the average, as many worthwhile as less-desirable traits are admired, and as many normal as 'abnormal' topics worried about.

Test 19. Social Adjustment. Range 60-0.

	S	I	R	U	B	G	T
N	81	72	93	91	175	162	337
Mean	13.90	14.90	16.11	14.36	15.49	14.31	14.93
SD							6.35

S > R

---

8. Due to the test being given in two forms in the pilot study, only 2 schools contribute to the S results.





distinction was not clearly shown in the direction of the shift. The shift was not as large as the shift in the direction of the shift.

CONCLUSIONS

There is a shift in the direction of the shift. The shift is not as large as the shift in the direction of the shift. The shift is not as large as the shift in the direction of the shift.

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How far the pupils answered truthfully it is impossible to say. One can only note that there was nothing for them to gain by falsifying their results. If pupils did attempt to disguise their adjustment it is unlikely that they would represent themselves as poorly adjusted. The results then, as they stand, probably give a fair assessment of adjustment but may err on the favorable side. This is satisfactory for the purposes of evaluation here attempted because, as in the other tests, where there is some doubt any advantage is given to the pupils. This makes the percentages reaching the accepted standards on the tests more valid than if they were underestimated in any way.

TABLE 8.2a.  
ANALYSIS OF VARIANCE

df 400/ 3 F at 5% = 2.63  
1% = 3.83

AREA DISTANCE WAS RELATED ACCORDING TO EACH OF THE TESTS.

TEST	RELATION	df	SS	MSa.	F	Sign.	SD
1A	Between means within groups	3 404	123.19 6807.59	41.06 16.85	2.436	-	4.105
1B	Between Within	3 337	185.91 26528.89	61.97 70.37	1.136	-	8.352
2.	Between Within	3 439	272.54 9938.25	90.65 22.77	3.95	.01	4.71
3.	Between Within	3 413	430.54 8999.44	160.18 21.79	7.352	.01	4.66

9. Indeed if that was the case, there might be grounds for considering this an adequate assessment!



TEST	VARIATION	df	SS	M.S.	F	Sign.	SD
4.	Between Within	3 443	1323.37 24352.13	440.86 56.13	7.356	.01	7.492
5.	Between Within	3 441	400.8 3562.07	133.6 8.03	16.54	.01	2.843
6.	Between Within	3 441	959.62 22383.78	296.54 50.17	5.493	.01	7.219
7.	Between Within	3 441	453.36 14600.34	151.12 45.34	3.13	.05	6.734
8.	Between Within	3 337	183.95 7378.35	67.35 21.48	3.917	.05	4.635
9.	Between Within	3 440	133.77 13737.93	54.59 31.79	1.745	-	5.593
9.	Between Within	3 433	831.23 11507.53	277.08 26.59	10.43	.01	5.157
10.	Between Within	3 439	49.69 585.04	16.56 1.33	12.43	.01	1.153
11.	Between Within	3 433	159.42 4501.69	53.14 10.28	5.17	.01	2.203
12.	Between Within	3 431	12.88 2732.01	4.29 6.3	1.469	-	2.510.
13.	Between Within	3 434	100.51 6926.13	33.17 15.96	3.078	-	3.925
14.	Between Within	3 435	141.39 1597.83	47.13 3.67	12.83	.01	1.916
15.	Between Within	3 435	51.64 1728.96	17.21 3.97	4.335	.01	1.992
16.	Between Within	3 439	343.29 14262.31	114.43 32.48	3.522	.05	5.699
17.	Between Within	3 438	582.36 11587.14	187.45 26.46	9.084	.01	3.144
18.	Between Within	3 440	1379.2 20272.9	459.7 46.29	9.931	.01	6.594
19.	Between Within	3 333	225.11 1221.23	74.04 36.36	1.234	-	5.232



AREA MEAN SCORE DIFFERENCES - t-test Contd.

TEST	SDM	df	AREA	N	MA-MT	AREAS	Diff.	Sign.	t	SEt
4.	7.492	443	S	154	1.59	S/I	.82	-		.9454
			I	106	.77	S/R	2.19	.05		
			R	92	-.6	S/U	4.56	.01		
			U	95	-2.97	I/R	1.37	-		
						I/U	3.74	.01		
						R/U	2.37	.05	1.096	

S, I & R : U Diff for 2 largest Ns at 5% = 1.863; at 1% = 2.449  
 S R Diff for 2 smallest Ns 5% = 2.16 1% = 2.839  
 Hence S/I & I/R not sign. and S/U & I/U  
 sign. at 1%. S/R & R/I are greater than 5%  
 for smallest but do not reach 1% level for  
 largest Ns, therefore both sign at 5%.

5.	2.343	441	S	152	.94	S/I	.48	-		.3553
			I	107	.46	S/R	2.48	.01		
			R	93	-1.54	S/U	1.44	.01		
			U	93	-.5	I/R	2.00	.01		
						I/U	.96	.05	2.387	.4021
						U/R	1.04	.05		.4161

S & I : U R diff for 2 largest Ns at 5% = .707; at 1% = .929  
 " " " smallest " " 5% = .820; at 1% = 1.08

6.	7.219	441	S	151	.53	S/I	1.23	-		.9101
			I	106	1.78	S/R	2.11	.05	2.228	.9461
			R	94	-1.58	S/U	2.15	.05	2.271	.9461
			U	94	-1.62	I/R	3.36	.01		
						I/U	3.40	.01		
						R/U	.04	-		1.053

S & I R & U Diff for 2 largest Ns at 5% = 1.795; at 1% = 2.359  
 Diff for 2 smallest Ns at 5% = 2.075; at 1% = 2.728

7.	6.734	441	S	152	.47	I/S	.84	-		.8501
			I	107	1.31	S/R	1.69	-1.92		.8801
			R	98	-1.22	S/U	1.49	-		
			U	91	-1.03	I/R	2.83	.01		
						I/U	2.33	.05	2.427	.961
						U/R	.20	-		.9649

I > R & U Diff for 2 largest Ns at 5% = 1.674; at 1% = 2.302  
 " " " smallest " " 5% = 1.901; " " 1% = 2.500

8.a	4.635	367	S	80	-.37	I/S	.54	-		
			I	107	-.91	S/R	.91	-		
			R	94	.54	S/U	1.10	-		
			U	90	.83	I/R	1.48	.05	2.213	.658
						I/U	1.74	.01	2.622	.661
						R/U	.89	-		

I > R & U Diff for 2 largest Ns at 5% = 1.29; at 1% = 1.697





AREA MEAN SCORE DIFFERENCES - t-test Contd.

TEST	SD <sub>M</sub>	df	AREA	N	MA-MT	AREAS	Diff.	Sign.	t	SED
9.	5.157	483	S	154	.12	S/R	2.89	.01	2.719	.6534
			I	106	1.48	I/S	.66	-		
			R	93	-2.07	S/U	1.90	.01		
			U	86	-1.08	I/R	3.55	.01		
						I/U	2.56	.01		
						U/R	1.99	.05		

S & I > U > R Diff. for 2 largest Ns at 5% = 1.287; at 1% = 1.692  
 " " " smallest " " 5% = 1.524; " 1% = 2.004

10.	1.153	482	S	151	.29	S/I	.10	-		.1463
			I	106	.19	S/R	.87	.01		
			R	94	-.58	S/U	.42	.01		
			U	92	-.013	I/R	.77	.01		
						I/U	.32	.05		
						U/R	.45	.01		

S & I > U > R Diff. for 2 largest Ns at 5% = .2832; at 1% = .3789  
 " " " smallest " " 5% = .2900; " 1% = .3814

11.	3.206	438	S	154	.69	S/I	.78	-	1.933	.4039
			I	107	-.09	S/R	1.64	.01		
			R	94	-.95	S/U	.76	-		
			U	97	-.07	I/R	.86	-		
						I/U	.02	-		
						U/R	.88	-		

S > R Diff for 2 largest Ns at 5% = .795; at 1% = 1.045  
 " " " smallest " " 5% = .9399; " 1% = 1.236

14.	1.916	435	S	154	.43	S/I	.06	-	1.974	.2532
			I	101	.37	S/R	1.46	.01		
			R	93	-1.03	S/U	.50	.05		
			U	91	-.07	I/R	1.40	.01		
						I/U	.44	-		
						U/R	.96	.01		

S, I & U > R Diff for 2 largest Ns at 5% = .4834; at 1% = .6364  
 S > U " " " smallest " " 5% = .5563; " 1% = .7313

15.	1.992	435	S	151	-.04	S/I	.48	-	2.436	.2873
			I	106	-.52	R/S	.50	-		
			R	94	.46	R/I	.98	.01		
			U	83	.18	R/U	.28	-		
						U/I	.70	.05		
						U/S	.22	-		

S & U > I Diff for 2 largest Ns at 5% = .4930; at 1% = .6545  
 " " " smallest " " 5% = .5821; " 1% = .7682



TEST AREA MEAN SCORE DIFFERENCES - t-test Contd.

TEST	SD <sub>N</sub>	df	AREA	N	MA-MT	AREAS	Diff.	Sign.	t	SE <sub>D</sub>
16.	5.699	439	S	152	.24	I/S	.84	-		.7193
			I	107	1.08	S/U	1.76	.05	2.321	.7580
			R	94	-.14	I/R	1.22	-		
			U	90	-1.52	I/U	2.60	.01		
						S/R	.33	-		
						S/U	1.39	-		.8407

S & I > U Diff for 2 largest Ns at 5% = 1.417; at 1% = 1.863.  
 " " " smallest " " 5% = 1.636; " 1% = 2.177

17.	5.144	438	S	153	.47	I/S	.41	-		.6324
			I	105	.38	I/R	.33	-		
			R	91	.66	I/U	3.00	.01		
			U	91	-2.12	S/U	2.59	.01		
						R/U	2.77	.01		.7680
						R/S	.13	-		

S, I & R > U Diff for 2 largest Ns at 5% = 1.385; at 1% = 1.690  
 " " " smallest " " 5% = 1.503; " 1% = 1.976

18.	6.804	440	S	153	1.68	S/I	.48	-		.8602
			I	106	1.07	S/R	4.41	.01		
			R	94	-2.76	S/U	2.83	.01		
			U	90	-2.18	I/R	3.83	.01		
						I/U	2.25	.05		
						U/R	1.58	-		1.0030

S & I > R & U Diff for 2 largest Ns at 5% = 1.694; at 1% = 2.228  
 " " " smallest " " 5% = 1.977; " 1% = 2.599

19	6.353	333	S			S/R	2.21	.05	2.289	.9656
			R							

S \ R.

20.			I			I/U	1.77	.05	2.20	.8
			U			I/S	1.15	-	1.64	.7
			S							

I > U

\* Check of certain differences which seem significant even though overall analysis did not reveal them.



SIGNIFICANCE OF SEX DIFFERENCES IN TEST SCORES (t-test).

TEST	DIFF.	Favouring	SE <sub>m</sub>	t	Sign.	Better Sex.
1a	1.19	G	.416	2.861	.01	Girls.
1b	4.60	G	.334	5.516	.01	Girls
2	1.34	G	.4547	2.846	.01	Girls
3	.30	B	.4693	.724	-	
4	3.74	B	.693	5.393	.01	Boys
5	.23	G	.2849	.807	-	
6	1.98	B	.753	2.612	.01	Boys
7	3.92	G	.6334	5.716	.01	Girls
8a	.48	B	.482	.996	-	
8b	1.40	G	.5259	2.662	.01	Girls
9	.53	G	.511	1.165	-	
10	.18	B	.1136	.704	-	
11	.10	B	.3095	.330	-	
12	.52	B	.2364	2.200	.05	Boys
13	.02	B	.3848	.052	-	
14	.08	G	.1905	.420	-	
15	.54	B	.1918	2.816	.01	Boys
16	.193	G	.5376	3.590	.01	Girls
17	2.53	G	.4835	5.234	.01	Girls
18	1.51	G	.6662	2.265	.05	Girls
19	1.18	G	.6896	1.711	-	

rather better than boys in Likely-right-behaviour,  
spelling, English, & letter.

boys rather better than girls in General-knowledge & Arithmetic.

Girls slightly better in Knowledge-of-right-behaviour,  
Attitude-to Goodworkmanship, Moral-judgment-  
rating, & Nature-emotional-choices.

Boys slightly better in Reading-tables, & Map-reading.



INTERPRETATION OF THE FINDINGS.

"... if teachers are not prepared to measure ethical, moral, and social behaviour using pupil-and-paper tests or other more direct observation techniques they should stop talking about personality and character and citizenship as functioning aims of school education."  
(CURRISON 1951)

Area differentiation in terms of the diary and questionnaire material clearly defined the four sample groups, so that explanations derived from the knowledge assisted in the analysis of the differences between areas in terms of mean scores on the tests. Where possible and necessary the variations between the scores of boys and girls were treated in a similar fashion with reference to such other information as was relevant. It now remains to set the distributions of pupils' scores against the teachers' standards which purport to represent the minimum levels to be expected of the majority of secondary modern school pupils on leaving.

It must be noted that these standards were based on a technique which assumed homogeneity of the total sample, though in many instances this had been disproved by significant area and sex differences. However, as in nearly all cases the actual differences were very small, the procedure appears justifiable. Because the standards were expected to cut off the majority of the pupils with the level of separation operating at the lower limits of the distributions, it was anticipated that small differences between means would result in minor percentage differences.<sup>1</sup> In fact, however, the assessed standards, far from cutting off the majority, function almost invariably at the middle or upper limits of the distributions, only a minority of the pupils reaching them.

---

1. Though with curves approximating to normality this would be likely to occur, it will be recalled that negatively-skewed distributions were planned for where possible, in order to accentuate the spread at the probable operational levels.





While some of the standards achieve the anticipated result in reverse by operating at the extremes of the upper 'tail', in many tests the line is drawn where the bunching of pupils is considerable. For this reason where sex or area differences occur in the test results the subgroups have been treated separately and the percentages of each reaching the standards have been assessed. These are shown numerically in the table below, and can be compared with the graphical presentations that appeared in Chapter VIII which show the number of boys and girls or of the total sample falling below the assessed levels.

**TABLE 9.1: PERCENTAGES REACHING THE STANDARDS SET BY TEACHERS.<sup>2</sup>**

Test	Total	Boys	Girls	S	I	R	U
				3			
1A. Social Behaviour (ought)	56	52	61	.	.	.	.
1B. Social Behaviour (Likely)	16	12	22	.	.	.	.
2. Goodworkmanship	13	12	15	16	16	7	12
3. Prejudice	6	.	.	9	8	1	2
4. General Knowledge	27	40	12	33	31	26	14
5. Best Reasons	23	.	.	33	26	10	16
6. Arithmetic	17	20	12	17	29	9	10
7. Spelling	8	5	11	7	12	8	5
8A. Moral Judgment (anking) (Omitted)	1	.	.	0	3	2	0
8B. Moral Judgment (Rating)	36	30	43	.	.	.	.
9. Design Discrimination	13	.	.	14	13	9	11
10. Attitude to Education	15	.	.	21	19	6	12

2. The st and represents the median of the teachers' assessment

3. Where omissions occur it means that the sex or area differences are not significant.



Test	Total	Boys	Girls	S	I	R	U
11. Library & Book Skills	31	*	*	34	36	19	32
12. Tables	17	22	11	*	*	*	*
13. Index	39	*	*	*	*	*	*
14. Comprehension of Information	19	*	*	39	38	5	24
15. Map	36	42	29	36	29	48	32
16. English Usage	14	9	19	15	17	11	5
17. Letter	48	43	57	*	*	*	*
18. Emotional Maturity	3	2	5	6	4	0	0
19. Social Adjustment	62	*	*	*	*	*	*

By and large, the area and sex distributions being similar in shape, the differences follow the same pattern as those found between means. The comments made on the various percentages reaching the minimum standards will therefore resemble the remarks made to explain the variations of the means. During the following discussions it should be borne in mind that the minimum standard was set such that approximately 90% of the pupils would be expected to reach it. With an appreciation of current educational difficulties, including staffing, class size, buildings and equipment, one might have regarded an arbitrary figure of 70% as acceptable even if somewhat unsatisfactory.

TEST 1A and 1B: SOCIAL BEHAVIOR.

(A acceptable, B satisfactory;  $r_A = .893$ ,  $r_B = .873$ ;  
range = 50;  $msa = A43$ ,  $B33$ .)<sup>4</sup>

- 
4. Following the title of each test, four items of information are given (a) the rating of the coherence of the assessments (b) the test reliability coefficient (c) the test range (d) the median standard of the assessors (msa).



This test proved a reliable and valuable measuring instrument; both aspects having adequate reliability of scores and standards. That only 50-60% reach the required level of knowledge of correct behaviour is perhaps disappointing but that 33% of the boys and 38% of the girls fall below the minimum standard of predicted behaviour is alarming.

The statements deal with everyday occurrences, and were in all cases gleaned from the written work of children of similar age and background, so that it is unlikely that the situations were abstruse. Any tendency to conceal likely behaviour would most naturally create a halo effect because the pupils are unlikely to represent themselves as worse than they really are. All in all, assuming the judged standards to be sound, the pupils do not show up very well. It is held

that the home background is often unsatisfactory; as one can only learn social habits by living a life in which such habits automatically develop (LIVINGSTONE 1943), the schools should be more alive to this problem.

Right at the outset of these comments however, the question is raised as to how sound are the judged standards. That the level in Test 1B is an accepted one is shown by the very close agreement among the teachers assessing it. That it is a fair and appropriate level is more difficult to uphold. It would appear wisest to postpone discussion of this problem till the conclusion of the chapter, meanwhile assuming the levels for the various tests that follow to be adequate in so far as the coherence ratings are adequate.

#### TEST 2: ATTITUDE TO GOODNESS.

(satisfactory;  $r = .641$ , range = 45,  $n_{sa} = 29$ )

Though small differences occur in the percentages reaching the level, as demonstrated in the sex and area analysis, the rural group (7%) is the only one to show any marked variation from the estimation that 13% of the sample appears to possess an adequate attitude. With this objective



continually being proclaimed, in general works on the modern school and in specific subject syllabuses, as of utmost importance to the average leaver, the results are thought provoking. Because there has been little definition of this attitude, it must not be discounted that the test is misnamed and measures something else. However, the acceptance of the instrument by teachers as apparently valid for its purpose counters this criticism, in that the content was thought by the staffs to contain the sorts of things they would aim at if they were working specifically to this end.

In fact, of course, there was little attempt in the schools tested to work towards this objective save indirectly through art, craft, and workshop teaching. Even here there was some doubt as to whether a teacher should introduce values. A tendency is abroad to beware of judging something as good, or as better than something else. But relative standards are all very well; there is a need for somewhere to start from.

Here is a field, with marked implications for England's present economic and industrial needs, in which the modern schools appear to be doing little towards the furtherance of a sound set of attitudes. It is little use replying to criticisms of the poor attitudes of leavers by saying that a sound attitude towards good workmanship is one of the main aims of the schools and implying that this will show itself in time, if whatever attempts are made at the moment bear so little fruit.

### TEST 3: PREJUDICE.

( Fair;  $r = .755$ ; range -20 to +20; nsa 9)

With about 93% of the suburban and industrial pupils and 99% of the rural and urbans failing to reach the level set by the teachers it is little wonder that many staffs and





their pupils do not see eye to eye. This most difficult set of topics, while referred to in curriculum programmes and syllabuses, is avoided by many teachers - if the remarks of the staffs in the schools visited are any guide.

The dichotomy of viewpoints demonstrated by a comparison of the accepted standard and the group means, plus the inhibiting emotional features that so often arise during discussions, would appear to provide the teachers with some excuse. Nevertheless studies (e.g. ELTON ASH 1944) have shown that while specific teaching may be of little value, a liberal atmosphere, enlightened contacts with out-groups and positively-directed subject matter may work for greater tolerance. It is encouraging to note the appearance of a UNESCO publication about race relations (BIBBY 1955a) intended to assist secondary school staffs, for there is no doubt of the need in this area.

The results indicate that rural and urban children require an even more careful approach because, though prejudice has little relationship with intelligence, community and home background play a most significant part.

#### TEST 4: GENERAL KNOWLEDGE.

(Acceptable;  $r = .603$ ; range = 60;  $msa = 38.5$ )

As 40% of the boys and a mere 13% of the girls reached the required standard, it might be assumed that, though the sexes have equal representation among the assessors the evaluated standard is primarily a boys' level. Though below expectation, the boys' results are nevertheless fair when ranged alongside the percentages reaching the standards in the other attainment tests. More disturbing is the low scoring of the girls and of the urban pupils (14%). It is true that many of the items may have little relevance to children living in substandard housing conditions, but the lack of a desire to acquire interesting and useful facts is very disappointing to a teacher.



It is difficult for the teacher to make up this deficiency by trying to start from the levels of the pupils, because it is soon found that not only the levels but the actual interests vary so greatly. In this situation adequate prior knowledge about each pupil provides a basis from which to work, with a minimum of time wasted in elucidating the facts. Unfortunately, in spite of the use of some forms of record cards, such information is all too often sketchy or absent. If then the teacher is to do a sound job - and interest and purpose seem the best basis for learning - the task of discovering such facts falls to the individual, and is usually shirked for very practical reasons. It is just such eventualities that need previous evaluative procedures undertaken with general staff cooperation, and sensible and economic use of record cards.

TEST 5: BEST REASONS.

(Poor;  $r = .734$ ; Range = 2 ;  $msa = 15.5$ )

Group differences for this test favour the suburban and industrial areas where approximately 30% reach the standard, compared with a mere 10% in the country. Again the possibility of intellectual factors governing part of these discrepancies must be pointed out, but nevertheless the pupils' ability to reason things out falls well below the level expected by teachers.<sup>5</sup>

Propaganda and advertising are known to be powerful weapons, and in these days of mass media, as never before, straight thinking should be at a premium. Though the measuring instrument can be described as only fair, and the coherence rating as poor, the results still seem to indicate

5. Even though the coherence rating is poor, only 35% of the sample reach the lower quartile of the assessments.



deficiencies in this field of thinking. If however we are hoping for too much from the average leavers in this respect, then it is time we found out what level can reasonably be expected.

#### TEST 4: ARITHMETIC.

(Good;  $r = .396$ ; range = 36;  $msa = 28.5$ )

An adequate measuring instrument, this set of 33 simple examples showed up many gaps in the arithmetical attainments of the fifteen-year-old leavers. It has already been pointed out that the standard set for this test agrees with the level expected of his pupils by a teacher of backward boys.

It is true that proficiency in speedy calculation drops with the lessening of practice but in such a case as this where ample time is allowed, poor scores require to be explained in terms other than the hours allotted to arithmetic. At least the teacher expects the basic processes to have been retained, but the finger counting, vocalising and paper work of simple tasks such as  $6 \times 4$ , observed during the testing, indicated inadequate and often faulty application of tables.

A mere 10% of rural and urban children reached the standard and in view of the superiority of boys, few girls would be included in this figure. The percentage of the industrial group (29%) though still unsatisfactory is somewhat higher than that of the other samples and may be indicative of the job-relevance of arithmetic in this area.

The picture is still more disquieting when it is seen that a mere 18% of the total sample reach the lower quartile of the assessments.



TEST 7: SPELLING.

(Satisfactory;  $r = .368$ ; range = 36; msa = 34.5)

When these words were first shown to staffs some time prior to testing, several members remarked that almost all of the words should be spelt correctly by the majority of leavers though they doubted that many pupils would in fact do well on the test. Their predictions about the standard and the 'norm' were fairly accurate in that the assessed level of expectancy is on the upper reaches of the scale and is such that approximately 3% only reach it. Nor do the sex or area percentages vary much from this figure.

Spelling of English words, with all its inconsistencies, does create difficulties for the learner because there are no reliable rules and few guiding principles that are not likely to mislead. More than is realised, the eye is predominantly important in spelling. It is true that semi-literate people and young children attempt to spell phonetically, but even with them spelling is largely a matter of the eye as the followers of the 'look and say' methods demonstrate. While the sound of the word no doubt plays a more significant part in writing than in reading, the eye is at least as important as the ear; how often is a word written down twice to see which one 'looks right'.

Latterly poor spelling among famous writers has become almost as much a symbol of intellectual superiority as poor handwriting. However this may be it does not apply in the working world. "Her Majesty's Inspectors of Schools frequently discourage correct spelling among children in favour of fluent writing; but the unfortunate children leave school at fifteen only to find that bad spelling is still regarded as a sign of illiteracy, and is likely to disqualify them for any clerical post." (VALLINS 1954).





The low standard of spelling may well be traced to this slacking of emphasis on corrections, but while fluent expression is a most laudable goal, there appears to be a need for direct teaching to supplement the indirect approaches at present widespread in the schools.

TEST 24: MORAL JUDGMENT (Ranking).

(Acceptable;  $r = .720$ ; range = 36;  $msa = 9$ )

Because of the extremely low reliability coefficient, this test has been omitted from the analysis.

TEST 25: MORAL JUDGMENT (Rating).

(Good;  $r = .760$ ; range = 64;  $msa = 5$ )

Some 30% of boys and 43% of girls succeed in reaching the standard set on this test, though only 40% of the total reach the lower quartile limits agreed upon by threequarters of the assessors. While these figures appear low, judgment in such a field as this will probably always err towards a higher standard than can justly be expected, as the evaluators tend to rationalise their own probable reactions.

Stinson (1948) has pointed out how the sense of values of club youth is often very different from that of more educated adults. The books of Hammersching (1955) and Jordan and Fisher (1955) bear this out with pertinent examples.

As Jones (1946) suggests that "moral values are well established by adolescence", there being "little change as the individual becomes older", the figures are disquieting, especially as the answers merely signify the rightness of response and yield no indication of probable action. Jones also points out, however, that at puberty a drop may occur in the standard of moral values as measured by tests (where the items are concrete examples) because of resentment at adult morality and rebellion against it.



Nevertheless, it seems from Test 1 on Social Behaviour that while a number of leavers know what is right few actually behave in accordance with this. With more significantly-moral situations even the knowledge of the correctness of an action appears below par.

Training in morals consists not only in teaching the codes of the group and the community but in instilling a high regard for them. In most cases pupils are expected to generalise from specific examples - a very difficult process unless directed by sound and effective guidance.

#### TEST 9: DESIGN DISCRIMINATION.

(Good;  $r = .611$ ; range = 40;  $msa = 29$ )

With such an instrument as this, one expects only fair reliability as indeed the test results demonstrated. A similar anticipation preface the assessing of the standard by the teachers (including art teachers and teachers of general subjects) only to be shown completely unjustified by the very high degree of agreement. In spite of the alleged vagueness of judgment in this field, teachers are able to agree on levels of acceptability of various patterns and designs of common objects.

The fact that only 12% of the pupils reached the level indicates that a gap exists between the opinion and appreciation of the staff and pupils, between the expected judgment standard and the leavers' actual performance. The remarks concerning values made in the discussion about goodworkmanship apply equally well here also. If these standards can be agreed upon especially when the judgments are arrived at independently, surely there must be some way of conveying them to the pupil.



The council for Industrial Design is keen to assist in the propagation of sound judgment in the purchasing of articles and the planning of homes; but as with so many such organisations in England, its potential is restricted by its limited communication with the schools. When the schools feel the need and express it, assistance is often found close at hand. At present, the problem seems to be to get the schools to feel the need.

TEST 10: ATTITUDE TO EDUCATION.

(Pocr;  $r = .752$ ; range = .6 to 10.31  $msa = 8.3$ )

Teachers' estimates as to the attitude that might be expected of fifteen-year-old modern school leavers varied substantially, as is shown in the coherence rating of Pocr.

It was difficult for them to shut out the attitudes they so often heard expressed; difficult for them to divorce themselves from reality as one put it. Hence the assessments tend to reflect the schools and the areas from which the assessors came; the 6.4 and 5.6 ratings coming from West Ham and Hornsey respectively, and the 9.6 from Richmond.

Indeed because of the various factors of home environment, vocational possibilities, abilities, and interests, etc. that combine to produce this attitude one might postulate varying standards for different districts. The percentages reaching the median standard agree with what a knowledge of group background differences might lead one to expect. Roughly 20% in the industrial and suburban areas, 12% in the urban and 6% in the rural are shown to possess satisfactory attitudes.

Even though Eliot (1951) claims that the spontaneous desire for education "is generally agreed to be stronger in the North than in the South of England, and stronger still in Scotland", the figures are low all round, and they provide an interesting commentary on the new horizons as set forth by



Jacks in Modern Trends in Education (1930). Here the emphasis is upon education as a life-long process. It is therefore disheartening to educationalists to find that just as the stage is set for further education in adulthood, the majority of the population indicate indifference or antagonism towards things linked with the word "education".

If it is true that one of the main aims of school education is to provide learners with a zest for enquiry, keen to learn more, and realising that they have merely been given a start in educating themselves, then the schools are falling down on their job.

TEST 11: LIBRARY SKILLS AND BOOK KNOWLEDGE.

(Satisfactory;  $r = .671$ ; range = 24;  $msd = 16$ ).

Though library tickets were more common in the suburban than in any of the other areas, any advantage this might have given to the mean of the group disappears in a comparison of the percentages reaching the standard. Approximately 32-36% of the city samples make the grade, while a mere 19% do so in the country. The low figure for the rural group emphasises the disadvantage of limited facilities and practical experience.

In addition to sending pupils from school with little interest in furthering their education, the school fails to equip many of its learners adequately with the techniques for discovering things for themselves - at least in the broad and varied field open in books and journals, both technical and recreational. Not only do the pupils show up rather unsatisfactorily in aspects of formal education; many of them are ill-equipped for and uninterested in doing something to improve matters in their after-school life.





TEST 12: USE OF TIMETABLES.

(Flax;  $r = .759$ ; range = 10;  $msd = 7.5$ )

Ability to read and understand tables becomes of increasing importance in a mechanised age, and already publications intended for the man-in-the-street contain graphs and information in tabular form; moreover the interpretation of forms has become a national necessity. It is hard to estimate how much effective transfer there is in the educating of faces from tables, but the skill, if skill it be, depends basically upon knowing how to go about the task and what the customary format features are.

Travel guides containing fare and time tables follow regular patterns, but initial guidance is usually required for efficient use. If the average modern school leaver has difficulty in finding out where to look for the instructions which explain how to interpret the guide, a need arises for consideration of the incorporation of this sort of material into lesson time. If the curriculum is presented on a subject basis, arithmetic, social studies, and English would all be satisfactory points for entering into this field. Naturally with a less strictly-oriented syllabus, introduction of this matter would be easier still.

By and large, the pupils tested had had no experience with this type of information. Apart from the brightest pupils who could follow through the booklet instructions, the majority found anything more than the simplest tasks beyond them as the 22% of boys and 11% of girls reaching the standard witnesses.

TEST 13: USE OF INDEX.

(Flax;  $r = .800$ ; range = 16;  $msd = 14$ )

This short test, related to objectives investigated by Test 11 (Library Skills and Book Knowledge), though possessing



reasonable reliability is noted only fair as regards the coherence of standard judgments. The instrument measures knowledge of the continuation principle of an index and skill in the use of the alphabet.

Nearly 40% reach the assessors' standard, while some 63% reach the lower quartile estimation. The percentage obtaining the set level is not high (though it appears so in comparison to many of the other results). The writer has since discovered that many of the children, being taught reading by a phonic or related approach, have never learnt the alphabet as a sequence of letters. It is true that the mere rote learning of the alphabet is of little assistance to the beginner in reading, but knowledge of the correct sequence of letters is invaluable for effective use of dictionaries, directories, and libraries. It would appear an oversight if the alphabet is completely neglected as a unit in its own right, but in the schooling of many children this seems to be the case.

TEST 14: COMPREHENSION OF GENERAL INFORMATION.

(Fair;  $r = .373$ ; range = 14;  $msd = 3.8$ )

Along with reasoning, and interpretation of tables, general comprehension represents an important function of the enlightened public which modern education seems to foster. As previously stated the material (instructions in a general publication addressed to the man-in-the-street) could hardly have been inappropriate to the level of the testees. Nor do the questions asked seem other than perfectly normal queries that might have led anyone to seek information in the booklet. No memory factors were involved because the material could be consulted at leisure. Yet over 60% of the pupils in the suburban and industrial areas, 76% in the urban, and 94% in the rural, failed to attain the level the assessors expected of them.



Teachers of English know that progress in this sort of task improves with guided practice. The objective is certainly a most worthwhile goal. It remains for the schools to look again at the work they are doing to see whether this valuable exercise, in whatever form that is found practical and successful, is reintroduced or re-emphasised.

TEST 15: COMPREHENSION OF MAP.

(Acceptable;  $r = .633$ ; range = 10;  $msd = 3$ )

With its implications for direction finding in a large metropolis or in a new part of the country, skill in being able to interpret a grid map is of obvious value to the person who travels outside his local environs. This may explain why boys are somewhat better at map reading than girls (17% : 20%) and why nearly half of the rural sample reach the required standard as against about a third of those from the city.

As the minor mode at the lower end of the distribution (see Fig. 1; Chapter VIII) indicates, a number of children did not know how to go about finding out many of the answers. There were many to whom the distance scale meant nothing, to whom the points of the compass were unknown, and to whom the relationships between the index, symbols and the grid were mysterious and unfathomable even after explanation.

It has been suggested that courses in social studies which include instruction on maps may improve this type of comprehension, but it should be remembered that such transfer as is desired in this direction should be taught for specifically.

TEST 16: ENGLISH USAGE.

(Satisfactory;  $r = .903$ ; range = 36;  $msd = 22.5$ )

For all its brevity for a test of this type this instrument proved quite satisfactory. It suffers from specificity of content but seems for present purposes a reasonable measure



of English. It is disturbing therefore to discover that not quite 10% of the boys nor 20% of the girls reach the required standard, and that in the urban area the combined figure is as low as 3%.

It is true that much of the criticism against the schools has been levelled at work in English, but it was not anticipated that the gap between 'hoped for' and actual performance would be so great.

The Army has shown concern at the attainments of recruits and National Servicemen, and Lt. Col. Hughes (1955) suggests that part of the trouble with their own educational programmes, and presumably those of the schools also, is that no standards have been laid down to assist in guiding efforts. He says "... it is, I think, true to say that nowhere has the criterion by which we are to judge competence in English at this level<sup>6</sup> ever been laid down."

Punctuation and sentence construction have apparently suffered, in addition to spelling, from the drive for fluency, but somewhere along the line a grasp of the essentials of those skills must be shown, or the fluency will be mere expression and not communication. Certain minimum levels of construction and word usage must be attained alongside this free flow of information or imagination. Somehow teachers must encourage the former without cramping the latter.

#### TEST 17: LETTER OF APPLICATION.

(Satisfactory; range = 36; mean = 16.5)

In view of the poor showing of the pupils on Test 16, it is interesting to note that 43% of boys and 57% of girls reach the standard of letter judged satisfactory by teachers. This yields a better result than any of the other attainment

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6. Army Certificate Third Class: for the Second Class the vague criteria of legibility, comprehension and understandability are suggested, with the art of correct usage considered important.





tests, and because of the nature of the assessment procedure - perusal of sample letters which permitted cross comparisons - this might make one suspect that the method used in this case was sounder. In fact, however, actual sample letters were not open for inspection, merely typed copies of these, so that judgment was not in fact based on actual performance. Further the assessors were unaware that the letters were in a sequence and this meant it was not a case of defining a dividing line between the satisfactory and unsatisfactory (though this is what, in effect, they did).

Even if this method is considered to have advantages over that used for the other tests, the resultant figures are still disturbing, though less so than the others mentioned. Somewhere near half of the total sample, when judged on their own efforts, are found below par in a task of written expression which has important practical vocational implications.

#### TEST 18: EMOTIONALLY MATTER CHOICES.

(Pocr;  $r = .632$ ; range = -10 to +10; nsa = 15.5)

This test was one of the least satisfactory of the battery, but judged merely as a rough group instrument, it still proved of some value in the survey. Apart from Test 8A (which was omitted) no other test had fewer reaching the standard; the group and sex percentages varying between 0% and 6%. Even at the lower quantile figure only 6% of the sample attain the required level. The results suggest that teachers know little about these adolescents or that the groups tested contain very immature youngsters.

Certainly no hard and fast lines could ever be drawn in this field but it would appear possible to estimate within broad limits what degrees of maturity could be expected during mid-adolescence. While variations from the average pattern might well still be 'normal' they would need to be explained



in terms of the background information known about the individual.

Either one claims that certain traits are to be referred to others or one does not. If one does then it is reasonable to expect pupils to be educated to appreciate their advantages and worth, or to be taught the deficiencies or misleadingness of the others. No one expects pupils to conform to a rigid pattern, because it is obvious that admired traits vary among groups and even according to the situation. Nevertheless some positive and definite entry must be made into the field of 'educating the emotions' and the topic under discussion is a small contribution to this.

As regards worries, teachers should also be aware of the problems which concern pupils individually and collectively. Without trying mistakenly to take the place of a Father Confessor or psycho-analyst, the teacher can help and guide if he knows his children well. Many teachers felt that this is impossible because of the enigma of the task during the turbulence of adolescence. But studies (SANDS 1939, WALL 1948) have indicated that, for over half of secondary school pupils, life, goes fairly peacefully and smoothly and that while the majority of the others are partly contented and partly discontented, only a very small percentage express "no pleasure in anything".

#### APPENDIX: SOCIAL ADJUSTMENT.

(Fair;  $r = .790$ ; range = 60;  $msa = 44.6$ )

With only 33% of the sample failing to reach the level of adjustment expected of leavers, the pupils showed up better in relation to social adjustment than to any other factor tested in the survey.

Before interpreting this as a fairly satisfactory result it must be noted that the assessors found this test the hardest to evaluate, and consequently tended towards leniency. Further the pupils may very well have flattered



themselves by means of a conscious or unconscious halo effect.

It seems likely that many children who are somewhat maladjusted in the school situation, may be quite well adjusted to their home and environs, however deficient these may be. One must beware of the term 'adjustment' without some qualification of the relationships implied in its use.

The test attempts to investigate self adjustment as well as relations with others, but it does not depend unduly heavily upon middle class values. Where these do impinge on the questions, the child is at liberty to place his own interpretation into his answer.

#### GENERAL INTERPRETATION

The question now arises as to what these marked discrepancies from expectation mean. While it is true that other samples of performance might be taken, and more valid instruments designed and used to produce a different pattern, the writer feels that the breadth of the enquiry, the satisfactory reliabilities of the instruments as group tests, and the general coherence of the estimates of expected standards, lead to the conclusion that the results offer a fair picture of the performance of secondary modern leavers even though the assessed standards may be rather high.

This cannot be taken as a direct indictment of teachers because specific aims attained by the individual teacher may have been omitted. But in so far as the aspects tested coincide with the aims teachers set up for themselves, the staffs may be considered to have fallen short of their objectives.

Smith (1955) writing on the "Educational Scandal" maintains that the native ability common to the majority of children is sufficient for the acquisition of a useful amount of skill in every school subject. He blames teaching for the low performance levels but excuses teachers because he



insists that they were given false ideas of education - "false ideas of its aims, purposes, procedures, and possibilities." "They were given delusive conceptions of educational values and ideals and were never encouraged to make a rigorous, scientific assessment of them."

Certainly the latter criticism is very true, but on the other hand Arnfelt, as an Inspector and Chief Education Officer, frequently found that the prevailing ideas about educational purposes and methods were very generally adopted as their own by teachers; yet there was often, "a curious gap between what was professed and what was practised" (1949).

As the majority of the assessors had had experience of secondary modern schools, one can assume that the standards are at least close to those hoped for by modern school staffs. What one can not assume is that the levels are attainable by the pupils. However, even if the teachers' estimates of possible performance are somewhat too high, a glance at the distributions (in Chapter VIII) shows that the standards would have to be preposterously low for anything like the anticipated proportion of pupils to reach the levels.

It does seem that Uprichard (1947) was probably right in feeling that modern school teachers were not efficient enough. The staffs in the four schools she used for her interesting curriculum experiment showed that they were capable of marked improvement in attitudes, appreciations and methods during the progress of her investigation.

Her conclusions about teachers suggest that those "Who adopt the 'clinical attitude' carefully assessing the abilities and aptitudes of their pupils, become acquainted with them personally, getting to know their parents and home background, and making careful records of the mental, emotional, social and physical growth are in a position to assess with reasonable accuracy the needs of their pupils. When such teachers are able to free their minds from the





demands of the traditional school and curriculum, they are, moreover, able to devise a curriculum to meet their needs."

That such a programme for teachers encourages an essentially evaluative approach could well be a major conclusion of this survey. The learning of skills and facts have a significant place in the scheme of things, enabling the individual to make a worthwhile contribution to the community to which he belongs, and to assist him to deal effectively with the everyday problems of living. To this end, besides development of interests, attitudes, and appreciations, etc., the child needs basic work in the tools of learning the 3 Rs. If this has not been accomplished by the time he reaches the secondary stage, then the modern school must assume responsibility for any further advancement that is possible and desirable.

With good teachers pupils should be assured of a good all-round education. But it appears that rather too many agree with "Balaram" (1955) when he writes "... only a limited number of children are capable of reaping exceptional benefit from school tuition. The rest just jog along; and it does not really matter whether they leave school at fourteen, fifteen, or sixteen, provided that they have a job to do when they leave, and that their after-school influences are not pernicious."

But without influences being pernicious, low performances can drop even lower after leaving school, as Wall's study of the decay of educational attainments suggests (1944). Further and more recent evidence of this is presented in the King George's Jubilee Trust publication "Citizens of Tomorrow" (1965). Particularly relevant to the question of standards are the comments of the Services on their intake,



Besides criticising the lack of self reliance, self confidence and initiative, the Army<sup>7</sup> claim that, while about 1% are illiterate (unable to write their own names and addresses), above 20% are of poor educational standard. With allowances for exceptions, the War Office calculated that about 50% should pass the Army Certificate of Education Second Class - intended to approximate the average attainment of a fifteen-year-old boy from a Modern School.<sup>8</sup> In fact a large number of recruits required an extended course before they could obtain even a Third Class Certificate believed to represent the average educational standard of a boy of 12 - 13 years of age.

As this latter level is approximately that which the minimum standards of the present evaluation were intended to determine, these statements provide useful confirmation for our findings.

However they also suggest that the teachers' assessments were scaled much too high.

As the teachers were convinced about the estimates they made, one can only assume that, perhaps because of the selective nature of their own secondary schooling, they lack the ability to alter significantly the standards and values they associate with this formative period of their lives; in spite of continual evidence that pupils fall well below these expectations.

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7. The other services report similar findings, though their intakes are somewhat superior. The Navy states that there is a wide gap between the Grammar and Technical, and the Modern. "With the latter group the standard varies widely and at the lower levels is extremely poor."

8. Communication with the W.O. regarding the basis of judgment of the average attainment of a fifteen-year-old modern school boy resulted in the final admission that someone had estimated this at some time, but no one had any knowledge of how this was done nor could any records pertaining to this be traced.



In fact there appears a dual expectation : (a) an 'actual' expectation based on experience. This is realistic; many teachers making accurate estimations of what their pupils would be able to do. (b) a 'hoped-for' expectation which represents what they think the children could achieve in the right circumstances and atmosphere. This may or may not be an accurate estimation of possible performance.

Most teachers seemed reasonably content with the former and had long ago pushed the latter idealistic (but perhaps possible) notion far back in their minds. Some, it is true, still stuck to their convictions about what the pupils should be able to do, but they were few in number and subject to cynical ridicule in the staff rooms.

The resultant dichotomy of standards that most teachers held (one in practice, the other in theory but repressed) may contribute to the frustration, cynicism and indifference not uncommon in many modern schools. To realise that pupils will reach one level, even after difficult and strenuous teaching, and yet feel underneath that they should be reaching another, so very much higher, must affect a teacher's morale when it occurs day after day, year after year. Alongside the low prestige, the lack of respect from the pupils, and the lack of purpose of so many schools it is little wonder that many teachers are disgruntled and disheartened.

The writer believes that at least part of the answer to the problems of unhappy teachers and under-educated pupils lies in the evaluative approach to the school's aims and purposes.

This can be jointly attempted by several schools (UPRICHARD 1955) or by the result of staff cooperation within a single school. The latter method is preferred by the Federal Council of Lancashire and Cheshire Teachers' Association who write "It is premature to think in terms of a



purpose common throughout the country, the Council believes that it is, nevertheless, desirable for each school to define its own aims and purposes in a manner which is clearly understood by all members of the teaching staff, easily explainable to parents and the community, and at least partially capable of appreciation by the pupils" (1955). They see the aims as being both 'non-material' and 'material' and outline a sample draft of desirable attitudes and skills such as a school might adopt (see appendix). In addition it is explicitly stated that "success should be measured in terms of aims accomplished rather than of subject-matter learned."

Thus it can be seen that the essentials of evaluation, though not emblazoned with a technical name, are abroad in England. One can only hope that schools will take advantage of this approach, by which if carried out conscientiously, the original aims of the secondary modern school for all pupils' general development could be achieved, through an educational programme designed to meet the needs as practically and directly as possible.





included: physical make-up; attainments; general intellectual capacity; special aptitudes (manual, mechanical, music, etc.); interests; disposition (attitude to self, others, work, etc.); and circumstances, house, background, special openings. As the report states "It will be essential in future for teachers to understand that they will be expected to give an estimate of every child at the end of his school career on the lines set out, and we consider that it is of the first importance that the teaching staff responsible for making the records and the juvenile employment staff using the records should be fully instructed in their preparation, use and purpose" (p.15). If the school did evaluate its pupils regularly and make thoughtful and careful use of record cards (ALLER 1955), the preparation of any such report would be a comparatively easy task.

Returning to the question of levels of performance and the possible raising of these through an evaluation programme it is interesting to note that whereas the two main current problems in English secondary education appear to be selection and standards, Dempster, while writing about the former, seems to think the latter more pressing. "Possibly some of the effort that has been put into selection for secondary education should be directed towards a fuller study of the shape and purpose of secondary education itself." (1954)

It is necessary to swing away from the all-too-prevalent conviction (held even in modern schools) that the real objectives in teaching are the facts contained in textbooks. How easy it is to accept texts that appear on the surface satisfactory but may in practice inculcate attitudes contrary to the professed aims of the teacher, is shown in "The Abolition of Man" (LEWIS 1947), where the implications of two English books are revealed.



Just how the attempt is made to give new life to the school depends on the staff and, to an extent, on the area. Some staffs have been using questionnaires to find out more about their pupils in order to improve educational provisions, but a more thorough investigation and probably an upheaval is needed. Schools may desire to take over one or other of the experimental programmes or plans that have proved successful, but change by itself is not enough, as was found when project methods were widely introduced. It is the spirit in which these are applied and the relationship of the scheme to the needs of the schools and pupils that matter. That is why it is necessary to assess the position first, to plan on the basis of the information acquired, and then to reassess continually so as to give the staff, pupils, and parents a chance to evaluate what is going on. This can provide the interest and incentive, purpose and prestige that are urgently needed.

As was explained in Chapter II, evaluation does not provide prepared lessons but merely an overall guide and a means of checking progress. Teachers may work towards what they are going to evaluate (which is no more than is done so often at present with much subject material), but with the clearer definition of aims, this should prove an advantage, because the teaching will be directed at the actual objectives that are desired. An illustration of the process involved in determining the direction of learning may explain this.

If one is concerned about the development of the concept of 'good citizenship', one would first ask how is this to be defined and how observed in action. An examination of the concept and its analysis into component parts would probably lead to the conclusion that an important element was the ability to think critically in social situations. Critical thinking might then be accepted as the specific outcome of general education about which information was required. One would



practical situations is presented but when an attempt is made to reconstruct these in the classroom, most will be found to be unrealistic. More attention would consequently be focussed on the actual situations in the classroom that permit critical thinking, and in this manner a way would open to provide the experiences which would assist the pupils to reach the objective.

This hypothetical development is an indication of how thinking about a problem may place emphasis on specific teaching objectives with general applicability that can be worked towards, in the knowledge that the education is contributing towards the general aims agreed upon. In some such way as this, the writer believes that modern schools without a purpose could revitalise themselves. Naturally evaluation is no panacea, and it depends almost as much on the co-operation of the pupils as on the efforts and faith of the staff. Nevertheless in its least inspiring form it is still a worthwhile approach that will show a school how valid are its methods - whether it is achieving what it sets out to achieve.

#### SUMMARY OF RESULTS.

Before presenting the conclusions that are suggested by this evaluation study, it is convenient at this point to summarise briefly the various findings. The four area samples presented varying characteristics, reflecting the socio-economic community background of the schools' respective catchment areas, and some of the more significant of these are referred to below.

The SUBURBAN groups came from comparatively static, stable, and homogeneous communities which provided better facilities and more opportunities than the other districts. About a third of the pupils showed a desire to continue schooling and a similar proportion of parents supported this. Their general opinion of education was fair, and a reasonable number showed interests in further education and beneficial recreational activities. The test results showed this group, along with the



industrial, as generally somewhat superior in attainment and also as regards the less tangible objectives. This occurred in spite of the fact that more of the brighter children in this area are selected for other forms of secondary education.

The INDUSTRIAL groups, while similarly rated to the suburban on a socio-economic scale, generally came from less adequate homes and surroundings. Most of their parents were engaged in light industry occupations. The group shows a tendency towards upward striving, which may be a feature of the community. The desire for improvement of position and living is not expressed through a wish for further schooling but through attention to further education that is work-connected. The pupils show up, when compared with the others, in arithmetic, spelling, and English and also with respect to lack of prejudice, a sound attitude to good workmanship, and adequate moral judgment and emotional maturity.

Of the city samples the URBAN children were fairly consistently below the others in all types of tests, both in school work and personality development. There appears in the area a tendency towards reaction against the school and the values it stands for, without much idea of what to put in place of all this. Lack of purpose and direction are more obvious here than in any of the other groups, being presumably connected with the generally low standard of living in the surrounding districts. The problem of what to do with leisure time is solved by engaging alternatively in passive forms of recreation and in aimless activity, seemingly without conscious thought as to its consequences. Individually the children have a great deal to offer, but collectively much of this is stifled. The teaching problem in such areas requires more than order, though many teachers feel that they can get nothing done until this is achieved. A helpful and understanding Head and staff





4. A desire for independence and need to support the family causes many to leave.
5. Pupils' criticisms of school include comments on subject matter, teachers, teaching and purpose. In general considerable appreciation of their own needs is expressed.
6. The majority enjoy reading but this mainly consists of escapist fiction.
7. Half the sample possess under 21 books of their own, and, except in the suburban area, about two thirds do not possess a library ticket.
8. Reading of daily and weekly newspapers is widespread and regular, but analysis of the contents showed that crims, comic strips, ads. and radio/T.V. (wherein fluent prose is generally at a minimum) were chiefly looked at.
9. Cinema attendance is regular, and high for many pupils, the average 1 to 1½ visits per week, concealing the fact that about 30% go very seldom. 20 pupils go 4 or more times each week.
10. Church going is low save among the country children. Most city pupils do not go at all.
11. Club membership is fair with about half of the girls and three quarters of the boys affiliated, but these figures include those who merely belong to a sports club. Social and sporting interests predominate - hobbies and artistic interests receiving scant attention.
12. A large number of children, especially the boys, have paid jobs after school hours and at the weekends. Most also assist to some extent with household chores; errands, gardening, housework and washing up being among the most common.



13. Participation in sports teams of any kind of level is low, with over half of the girls and a third of the boys not playing at all throughout the year.
14. Along out-of-school activities, passive recreation (television and cinema viewing, and radio listening) occupies most of the time, followed by reading and dancing for girls, and sport and jobs for boys. What time was not included under specific headings was spent 'playing around', 'out in the street', 'with my friend(s)'. Some of this 'activity' has been included under Park, and occupies a considerable section of these adolescents' leisure time.

With regard to the test results for the sample as a whole, the levels of performance indicate: reasonable knowledge of correct behaviour but little likelihood of its general application; a disappointing attitude to good workmanship and a disturbing amount of prejudice; a fair grasp of general knowledge at least among boys; inadequate reasoning; very unsatisfactory attainment in arithmetic and spelling; reasonable moral judgment as to the rightness of an action; limited design discrimination; a disheartening attitude to education; a fair understanding of libraries, books, maps and indexes but little ability in interpreting tables or in comprehending printed information; a poor level of English usage though a more reasonable command of written expression, rather immature worries and appreciation of desirable character traits, but seemingly adequate social adjustment.

The overall picture is not an encouraging one. The standards by which performance has been judged may be too high, but for reasons already suggested, even with this proviso, the patterns that have emerged are, to say the least, disquieting. While the methods and techniques may be open to specific criticism it is doubtful that the facts are very far from the



truth. Even if all the findings are not accepted, that such an enquiry can produce provocative results is all to the good, for it will stimulate efforts to correct any wrong impressions. It is only by rigorous experimentation that the qualitative statements so often aired can be given substance.

#### CONCLUSIONS.

The following opinions have emerged as a result of this evaluation study:

1. Attainment of reasonable levels of performance by secondary modern leavers in both the academic and personality development aspects of school education is largely unsatisfactory if the examples of the average schools tested in this survey are any guide. In view of the low levels of educational accomplishment reported of the entrants into the Services it would be valuable to compare boys' leaving results with their later performance on beginning National Service so as to assess some of the effects of the intervening years.
2. Establishment of minimum standards by relatively small groups of teachers is a practical and reliable technique. In a refined form, with more specific definition of the level to be judged, this procedure may prove useful in other fields.
3. In evaluating leavers' performances the present standards of teachers appear too high, suggesting insufficient and perhaps deficient knowledge of the capabilities of pupils.
4. A source of teacher frustration and indifference may lie in the wide discrepancy between 'hoped for' levels and the levels the pupils will probably reach. That the teachers are to some extent aware of this difference is



suggested by their acceptance of the tests as allowing reasonable spread of pupils' scores over the test range, although they consistently assessed the standards at high points in the scales.

5. The schools tested, and secondary modern education in general, show a lack of precise definition of objectives, or clear direction and purpose.
6. A minimum of education appears to be directed at the less tangible aims professed by modern schools, with a great deal of faith being placed in effective transfer of a mind for which there is little experimental justification.
7. A need is apparent for clearer definition of such concepts as curiosity and goodworkmanship, and research into possible ways of fostering sound development in these and related fields.
8. There is a need for many schools to be overhauled on a philosophic as well as a practical plane with greater co-ordination of head and staff in the procedure. The purposes of much teaching require clarification.
9. The need for evaluation of some kind is paralleled by the desire for it on the part of staff and pupils.
10. Evaluation, accentuating positive aspects of measuring, fits the aims of the modern school better than either internal or external examinations of a basically academic nature. These latter may also play a part in the school's scheme as offshoots of the general education programme to cater for the specific needs of certain pupils.
11. The raising of the school leaving age to 16 does not appear to be a solution to modern school problems at present. It is more important that the schools should endeavour to justify compulsory education in mid adolescence to their pupils. The provision of Country Colleges may be a more practical proposal, though even with





these a voluntary entry basis might be more rewarding in the long run.

12. The tests were purposely designed in as short and simple a form as possible in order to gauge what reliabilities could be obtained in so doing. The results indicate that teacher and staff evaluative programmes could with some guidance, be satisfactorily effective.
13. In view of the difficulty the pupils experienced with the Green Line Coach Guide it seems that printed matter provided for the general public may be written at a level too advanced for those who would profit most from it. This suggests a need for evaluation in the field of communication of information.
14. Consideration of the problems facing the modern school from an educational point of view suggest that a partial solution might be found in the establishment of small comprehensive schools - as opposed to the present tripartite or bipartite systems. However, because the existing divisions have developed historically and with social ramifications, the modern school is each year becoming a more permanent feature of the English system despite the freedom of local schools for individual growth. While this remains so, a thorough examination of the general aims and purposes of these schools should be attempted, along with the determination of their objectives in specific form by single schools in the light of their peculiar local conditions.
15. Too little cooperation and coordination is evidenced between one school and another even within the same neighbourhood. It has always been a proud boast that English schools are virtually autonomous, but while this is substantially true and of great value, it is also the downfall of the many schools which lack the



inspiration of a good head and /or staff. There are signs that more information is being circulated from school to school, both from primary to secondary and between schools at the same level; also that a number of modern schools are gaining thereby a new lease of life. They fail, however, to convince the onlooker that the average child is receiving his due. Greater attention is focussed on the brighter child in England than in the other English-speaking countries, and nowadays more is being paid to the dull and backward. But, if only from a statistical point of view, it would seem sound policy to look at the education of the 'ordinary' child.

#### **EPILLOGUE.**

A child who is able to note his own progress and its recognition by others will not only be helped to realise where he falls short of potential accomplishment but stimulated in his self development. If goals are set up with the aid of the teacher, consonant with the pupils' individual capacities and expressing not only the educators' concepts of desirable objectives but his own aspirations as well, he is likely to apply himself to developing progressively towards competence in the art of living in today's complicated society.

This implies continuous evaluation. If the devised measure indicate growth in the light of individual capacities the appraisal will have beneficial effects on the pupils' sense of personal worth. This means that the feeling of security within himself and with others as an expression of developing personality is of more concern than the success or failure in any given undertaking. Nevertheless this in turn implies a level of competence in such skills and tasks as are natural outcome of his abilities. Education should be satisfactory and satisfying - these terms applying equally to the educand and to the society in which he is to make his place.

Let us



Let it never again be possible for anyone to report as does Stanley (1948) that when boys in a youth club were questioned about their education - had it helped them in their lives since they had left, had it made them understand life better? - they answered "No, but why should it? It was school."



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